



ballasts

2008 product catalog

Transforming
the **POWER**
of light™



US/Canada Customer Ordering and Tracking—www.geelitenet.com
For detailed ballast and lamp specifications—www.gelighting.com
For order, technical or warranty assistance, call: 1-888-GEBALLAST (432-2552)
OEM Customer Service: (T) 1-800-833-4933, (F) 1-800-327-0588
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Transforming
the **POWER**
of light™



GE Consumer & Industrial Lighting

The future can seem pretty intimidating: Our known reserves of oil and natural gas are expected to be depleted by 2045, the climate is changing, and more than a billion people lack clean water. At GE, we believe some of the world's most pressing challenges present an opportunity to do what we do best: **Imagine and build innovative solutions that benefit our customers and society at large.**

As a global leader in energy, technology, manufacturing and infrastructure, GE is uniquely suited to help solve environmental challenges, today and for generations to come. Our customers want a more prosperous, cleaner future. By harnessing our most abundant renewable resource—the imagination of our people—we can create that future with them. We are taking a new approach to solving some of our customers' toughest environmental problems.

We call it ecomagination.sm

Impact of ecomagination:

A manufacturing and warehouse facility was looking to reduce costs and greenhouse gas emissions:

Existing Lighting

400W MH std. CWA	
Light output*	23,000 mean lumens at 8,000 hours (19,200 lumens at 12,000 hours)
Size	100,000 sq. ft. – 300 fixtures
Energy Rate/Burning Hours	10¢ kWh/5,000 per year
Total Watts per Fixture	458
Energy Used	\$68,700
RoHS compliant**	No

Proposed Lighting

4-Lamp T5WM HO with UltraStart® Ballast	
Light output*	19,000 mean lumens at 12,000 hours
Watts per Fixture	216
Energy Used	\$32,400
Energy Saved	\$36,300
RoHS compliant**	Yes

Environmental Impact

Watts Saved	363,000 kilowatt-hours per year
Greenhouse gases (CO ₂)	Reduced by 519,090 lbs. per year
SO ₂	Reduced by 2,030 lbs. per year
The equivalent effect of:	
Equivalent Forestation	71 acres
Equivalent Cars	45 cars removed from the roads for a year



Our heritage, our future

We believe that better technology is the answer to our customers' environmental challenges. And we are confident we can find tomorrow's solutions to those challenges just as we have since the days of our founder, Thomas Edison.

Throughout our 115-year history, we have invented solutions to meet our customers' greatest needs. Over many years, we have developed one of the broadest ranges of environmentally advanced technologies. We will build on this legacy of success by researching and developing next-generation clean technologies. Our goal is to be a leader in bringing clean energy, air, water and improved quality of life to all of the world's citizens.

ecomaginationsm



*Mean lumen measured at 40% of rated life
 **RoHS compliant: European Directive (2002/95EC on the Restriction of Hazardous Substances) states that (beyond certain limited exemptions) electrical and electronic products shall not contain lead, cadmium, mercury, hexavalent chromium, polybrominated biphenyls (PBBs), or polybrominated diphenyl ethers (PBDEs). GE's UltraStart® ballasts use lead-free solder and other environmentally preferable materials that meet the RoHS directive. RoHS-compliant ballasts are GE's commitment to helping our customers meet their disposal needs now, and in the future.

GE Consumer & Industrial Lighting

Product Warranties

Light your world with a brand you can trust—GE.

GE has been a leader in innovative lighting technologies for over 100 years. Our name on the label is virtually synonymous with dependable, efficient, high-quality products—and that is why we are totally confident in the system performance and reliability of our lamps and ballasts. Also it is why we are willing to back them with a limited warranty that provides excellent coverage against defects in materials and workmanship.

If your GE lamp or ballast, when installed and used properly, fails during its warranty period because of defects in materials or workmanship, our warranties provide for purchase price credits or replacement. Of course, every lamp, ballast and system is different and warranty details vary, so check the individual warranty for your product at <http://genet.gelighting.com/LightProducts/html/warranties.htm>.

GE Ultra High Efficiency Design is Ultra Cool!

Results:

Combine GE's Ultra ballasts with cool running fixtures to achieve maximum system performance in hot temperatures. GE provides the Ultra Cool™ system certification with high grade fixture systems which means a 5 year 55°C max ambient warranty.

System Limited Warranty

GE Lamps operating on GE Ballast

Compact Fluorescent Lamp	Warranty *	Electronic Ballast Warranty	Electromagnetic Ballast Warranty
Double Biax®: 13-, 18-, 26-watt 4-pin base	1 year after date of purchase or 4000 hrs.	5 years from date of manufacture	2 years from date of manufacture
Triple Biax®: 13-, 18-, 26-, 32-, 42-watt	1 year after date of purchase or 4000 hrs.	5 years from date of manufacture	2 years from date of manufacture
2D®: 10-, 16-, 21-, 28-, 38-watt	1 year after date of purchase or 4000 hrs.	5 years from date of manufacture	2 years from date of manufacture
Linear Fluorescent Lamp	Warranty	Electronic Ballast Warranty	Electromagnetic Ballast Warranty
F25T12**	3 years after date of purchase or 10,500 hrs.	5 years from date of manufacture	
F28T8, F32T8, F32T8WM	3 years after date of purchase or 10,500 hrs.	5 years from date of manufacture	
F32T8/XL, F32T8/XL/HL, F32T8/XL/WM	3 years after date of purchase or 12,500 hrs.	5 years from date of manufacture	2 years from date of manufacture
F32T8 SXL, F32T8/25W	4.5 years after date of purchase or 15,750 hrs.	5 years from date of manufacture	
F14T5HE, F21T5HE, F28T5HE, F35T5HE, F54T5HO	4 years after date of purchase or 14,000 hrs.	5 years from date of manufacture	
F14T5/WM, F21T5/WM, F28T5/WM, F35T5/WM, F54T5/WM	3.5 years after date of purchase or 12,500 hrs.	5 years from date of manufacture	
F28WT5/HL	3 years after date of purchase or 10,500 hrs.	5 years from date of manufacture	
F96T8	2 years after date of purchase or 8,000 hrs.	5 years from date of manufacture	
F96T8/XL, F96T8/XL/WM, F96T8/XL/WMP	3 years after date of purchase or 10,500 hrs.	5 years from date of manufacture	
HID Lamp	Warranty	Electronic Ballast Warranty	Electromagnetic Ballast Warranty
CMH® ConstantColor® SPXX 250-, 320-, 350-, 400-watt	1 year after date of purchase or 5000 hrs.	5 years from date of manufacture	
PulseArc® 250-, 320-, 350-, 400-watt	1 year after date of purchase or 5000 hrs.	5 years from date of manufacture	

*Based on whichever comes first

**On GE Normal light output UltraMax®, ProLine® or Multivolt Proline® instant start ballasts

***See warranties at gelighting.com for specific lamp cycle requirements for instant start & program start ballasts. Cycle time with program start ballasts shall be 15 minutes or greater

****All covRguard® lamps are included

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2008 Ballast Product Catalog

This catalog contains North America ballast and lamp data as of December 2007. Additional information is constantly being uncovered through research and testing, which may modify the data given herein. Changes may be made at any time. The data and suggested applications should not be taken as representations or warranties as to the suitability of a ballast for a particular application.

EcomaginationSM is GE's commitment to create products that help our customers improve their environmental and operating performance. GE's UltraStart[®] T5 and T8 programmed start and GE UltraMax[®] Instant Start ballasts are among the highest energy-efficient ballasts available and contribute to significant reductions in energy consumption and the curbing of greenhouse gas emissions.

RoHS compliant:

European Directive (2002/95EC on the Restriction of Hazardous Substances) states that (beyond certain limited exemptions) electrical and electronic products shall not contain lead, cadmium, mercury, hexavalent chromium, polybrominated biphenyls (PBBs), or polybrominated diphenyl ethers (PBDEs). GE's electronic ballasts use lead-free solder and other environmentally preferable materials that meet the RoHS directive. Although not required in the U.S., RoHS-compliant ballasts show GE's commitment to helping our customers meet their disposal needs now, and in the future. GE encourages customer awareness on the importance of reducing hazardous materials and getting ahead of complying with environmental trends. Look for the RoHS-compliant mark on GE ballasts.

UltraMax[®] Electronic Ballast

A family of high-efficiency GE T8 instant-start electronic linear fluorescent ballasts designed to optimize GE's T8 Ultra lamps for optimal system energy savings. UltraMax[®] ballasts have a lamp-friendly low-lamp-current crest factor and virtually "read" and adapt to incoming voltage from 108V to 305V. Other features include UL Type CC Anti-Arc Rating and anti-striation control to eliminate lamp striations and spiraling. All UltraMax[®] ballasts exceed 90% efficiency and the NEMA Premium[®] ballast program minimum efficiency requirements.

UltraStart[®] Electronic Ballast

UltraStart[®] ballasts are a family of high-efficiency GE Program Start (see page 36) electronic linear fluorescent ballasts designed to optimize GE's T8 and T5 Ultra lamps in frequently switched applications. Instant Start ballasts provide approximately 10,000 starts before 50% of lamp failure. UltraStart[®] provides greater than 100,000 starts. UltraStart[®] have the equivalent energy savings and convenience of instant start ballasts but with the long lamp life of a programmed start ballast.

UltraStart[®] T8 L, N and H ballasts exceed 90% efficiency and the NEMA Premium[®] ballast program minimum efficiency requirements.



UltraMax[®] T8 Electronic Ballast



UltraStart[®] T8 Electronic Ballast



Multivolt ProLine[®] CFL Ballast



Sign Ballast



HID Electromagnetic Ballast Kit



UltraMax[®] eHID Ballast

ProLine[®] Electronic Ballast

Offered in dedicated or multivolt (120-277V), these high-performance T8 instant start ballasts are long life, less than 10% THD and most models also meet minimum efficiency requirements of the NEMA Premium[®] ballast program.

Compact Fluorescent Lamp (CFL)

CFLs are single-ended T4 and T5 lamps that are bent to form a compact shape. Screw-in CFLs have an integral ballast with a screw base for easy replacement of incandescent lamps. GE offers multi-voltage, multi-lamp and multi-entry ballasts for a wide range of CFL plug-in lamps. Multivolt ProLine[®] CFL ballasts are designed for plug-in lamps so that a ballast will survive over the useful life of approximately 3-to-4 lamp lives.

Electromagnetic Ballast (Magnetic Ballast)

Primarily used for T12 lamps. These ballasts operate lamps at a less efficient 60Hz and typically have efficiencies of 70-80%. Most ballasts consist of a core and coil transformer assembly. Today, magnetic ballasts for 4 foot and 8 foot lamps are typically used only for replacement purposes and are restricted by EPACT to be sold, even in replacement applications, starting in 2009.

Sign Ballast (Magnetic Ballast)

Designed to operate T12 HO Lamps at 120 volts in cold and damp conditions in sign cabinets.

GE eHID, Electronic High Intensity Discharge Ballast (eHID)

Electronic HID significantly improves the performance of HID lighting. GE's UltraMax[®] eHID ballast operates pulse start and ceramic metal halide lamps.

GE High Intensity Discharge Ballast (HID)

HID magnetic ballasts consist of robust core and coil designs that meet or exceed minimum ANSI requirements. These ballasts are typically sold as distributor replacement kits which are pre-wired with a capacitor, ignitor (if applicable) and all necessary mounting hardware and instructions. Each wattage is typically offered in quad (MLT-120/208/240/277 volt), 5-tap (ML5-120/208/240/277/480 volt) or 480 volt (48T) options.

Quick reference ballast selection guide

Std Pack Prod Code	Description	Application	Product Page Number	Pallet Pack	DIY Pack	Std Pack Units Per Carton
T8 Fluorescent Ballasts						
T8 INSTANT START BALLASTS						
UltraMax® Instant-Start Multi-Voltage High-Efficiency						
For F17 (2 ft), F25 (3 ft), F32 (4 ft), F40 (5 ft) Lamps						
72258	GE132MAX-L/ULTRA	1 – F32T8 120 to 277 "L".77 BF UltraMax®	38			10
72259	GE132MAX-N/ULTRA	1 – F32T8 120 to 277 "N".87 BF UltraMax®	38		72260	10
49775	GE232MAX-H/ULTRA	2 or 1 – F32T8 120 to 277 "H".115 BF UltraMax®	39	47548		10
72262	GE232MAX-L/ULTRA	2 or 1 – F32T8 120 to 277 "L".77 BF UltraMax®	39	72256		10
72266	GE232MAX-N/ULTRA	2 or 1 – F32T8 120 to 277 "N".87 BF UltraMax®	40	72267	72268	10
71421	GE232MAX-N+	2 or 1 – F32T8 120 to 277 "N+".10 BF UltraMax®	40			10
71714	GE332MAX-H/ULTRA	3 or 2 – F32T8 120 to 277 "H".118 BF UltraMax®	41	71715		10
71717	GE332MAX-L/ULTRA	3 or 2 – F32T8 120 to 277 "L".77 BF UltraMax®	41	71718		10
71719	GE332MAX-N/ULTRA	3 or 2 – F32T8 120 to 277 "N".87 BF UltraMax®	42	71721	71722	10
71422	GE332MAX-N+	3 or 2 – F32T8 120 to 277 "N+".10 BF UltraMax®	42			10
71723	GE432MAX-H/ULTRA	4 or 3 – F32T8 120 to 277 "H".118 BF UltraMax®	43	71724		10
71725	GE432MAX-L/ULTRA	4 or 3 – F32T8 120 to 277 "L".77 BF UltraMax®	43	71726		10
71727	GE432MAX-N/ULTRA	4 or 3 – F32T8 120 to 277 "N".87 BF UltraMax®	44	71729	71730	10
71423	GE432MAX-N+	4 or 3 – F32T8 120 to 277 "N+".10 BF UltraMax®	44			10
71731	GE632MAX-H90-V60	6, 5, 4 – F32T8 120 to 277 "H" BF UltraMax® 0-10V 100-60% continuous dim		71732		10
71497	GE632MAX-H90-S60	6, 5, 4 – F32T8 120 to 277 "H" BF UltraMax® 95% 100/60% step dim		71502		10
For 46 – 59W 4 ft – 8 ft Slimline Lamps						
49766	GE159MAX-N/ULTRA	1 – F96T8 120 to 277 "N".87 BF UltraMax®	45			10
49767	GE259MAX-N/ULTRA	2 or 1 – F96T8 120 to 277 "N".87 BF UltraMax®	45		23954	10
ProLine® T8 Multivolt 120V – 277V						
For F17 (2 ft), F25 (3 ft), F32 (4 ft), F40 (5 ft) Lamps						
72269	GE-132-MV-N	1 – F32T8 120 to 277 "N".87 BF MV ProLine®	46	72270		10
30198	GE-232-MV-H	2 or 1 – F32T8 120 to 277 "H".118 BF MV ProLine®	46	30275		10
72273	GE-232-MV-L	2 or 1 – F32T8 120 to 277 "L".77 BF MV ProLine®	47	72274		10
72275	GE-232-MV-N	2 or 1 – F32T8 120 to 277 "N".87 BF MV ProLine®	47	72276	72277	10
30199	GE-332-MV-H	3 or 2 – F32T8 120 to 277 "H".115 BF MV ProLine®	48	30296		10
30255	GE-332-MV-L	3 or 2 – F32T8 120 to 277 "L".77 BF MV ProLine®	48	30309		10
30192	GE-332-MV-N	3 or 2 – F32T8 120 to 277 "N".87 BF MV ProLine®	49	30270	97710	10
30219	GE-432-MV-H	4 or 3 – F32T8 120 to 277 "H".115 BF MV ProLine®	49	30303		10
30262	GE-432-MV-L	4 or 3 – F32T8 120 to 277 "L".77 BF MV ProLine®	50	30310		10
30193	GE-432-MV-N	4 or 3 – F32T8 120 to 277 "N".87 BF MV ProLine®	50	30271	97711	10
For 46 – 59W 4 ft – 8 ft Slimline Lamps						
30195	GE-159-MV-N	1 – F96T8 120 to 277 "N".87 BF MV ProLine®	51	30274		10
30194	GE-259-MV-N	2 or 1 – F96T8 120 to 277 "N".87 BF MV ProLine®	51	30272	97712	10
ProLine® T8 Multivolt High Output 120V – 277V						
For 44 – 86W 4 ft – 8 ft HO Lamps						
30176	GE-286-HO-MV-N	2 or 1 – F96T8HO IS 120 to 277 "N".87 BF	52	30187		10
ProLine® T8 Instant-Start High-Performance						
For F17 (2 ft), F25 (3 ft), F32 (4 ft), F40 (5 ft) Lamps						
23680	GE-132-120-N	1 – F32T8 120V "N".87 BF ProLine®	53	24161		10
23681	GE-132-277-N	1 – F32T8 277V "N".87 BF ProLine®	53	24162		10
23671	GE-232-120-N	2 or 1 – F32T8 120V "N".87 BF ProLine®	54	24163		10
23672	GE-232-277-N	2 or 1 – F32T8 277V "N".87 BF ProLine®	54	24164		10
23673	GE-332-120-N	3 or 2 – F32T8 120V "N".87 BF ProLine®	55	24165		10
23674	GE-332-277-N	3 or 2 – F32T8 277V "N".87 BF ProLine®	55	24166		10
23675	GE-432-120-N	4 or 3 – F32T8 120V "N".87 BF ProLine®	56	24167		10
23676	GE-432-277-N	4 or 3 – F32T8 277V "N".87 BF ProLine®	56	24168		10
For 46 – 59W 4 ft – 8 ft Slimline Lamps						
23677	GE-259-120-N	2 or 1 – F96T8 120V Normal Light .87 BF ProLine®	57	24169		10
23678	GE-259-277-N	2 or 1 – F96T8 277V "N".87 BF ProLine®	57	24170		10

Std Pack Prod Code	Description	Application	Product Page Number	Pallet Pack	DIY Pack	Std Pack Units Per Carton
T8 Fluorescent Ballasts						
Residential Grade ProLine® T8 120V						
For F17 (2 ft), F25 (3 ft), F32 (4 ft) Lamps						
97782	GE232-120-RES	2 or 1 – F32T8 120V "N".87 BF Residential ProLine®	58		71037	10
97783	GE432-120-RES	4 or 3 – F32T8 120V "N".87 BF Residential ProLine®	58		71038	10
Electromagnetic T8 Ballasts						
For F17 (2 ft), F25 (3 ft), F32 (4 ft) Lamps						
87125	GEM232T8RS120	2 – F32T8 RS 120V Magnetic Ballast	59			10
87130	GEM232T8RS277	2 – F32T8 RS 277V Magnetic Ballast	59			10
T8 PROGRAMMED START BALLASTS						
UltraStart® T8 Programmed Start						
For F17 (2 ft), F25 (3 ft), F32 (4 ft) Lamps						
29621	GE-232-120-PS-N	2 – F32T8 120V Normal Light .87 BF <10% THD UltraStart®	60	29630		10
29622	GE-232-277-PS-N	2 – F32T8 277V Normal Light .87 BF <10% THD UltraStart®	60	29632		10
96714	GE232-MVPS-N	2 or 1 – F32T8 120V-277V Normal Light .88 BF <10% THD UltraStart®	61	96717		10
96720	GE232-MVPS-L	2 or 1 – F32T8 120V-277V Low Watts .71 BF <10% THD UltraStart®	61			10
29675	GE-232-MVPS-H	2 – F32T8 120V-277V High Light 1.15 BF <10% THD UltraStart®	62	29651		10
29671	GE-232-MVPS-XL	2 – F32T8 120V-277V Ultra Low Watt .60 BF <10% THD	62	29665		10
29623	GE-332-120-PS-N	3 – F32T8 120V Normal Light .87 BF <10% THD UltraStart®	63	29633		10
29624	GE-332-277-PS-N	3 – F32T8 277V Normal Light .87 BF <10% THD UltraStart®	63	29634		10
29676	GE-332-MVPS-H	3 – F32T8 120V-277V High Light 1.15 BF <10% THD UltraStart®	64	29656		10
96715	GE332-MVPS-N	3 – F32T8 120V-277V Normal Light .88 BF <10% THD UltraStart®	64	96718		10
96721	GE332-MVPS-L	3 – F32T8 120V-277V Low Watts .71 BF <10% THD UltraStart®	65			10
29672	GE-332-MVPS-XL	3 – F32T8 120V-277V Ultra Low Watt .60 BF <10% THD	65	29666		10
29625	GE-432-120-PS-N	4 – F32T8 120V Normal Light .87 BF <10% THD UltraStart®	66	29635		10
29627	GE-432-277-PS-N	4 – F32T8 277V Normal Light .87 BF <10% THD UltraStart®	66	29650		10
96716	GE432-MVPS-N	4 – F32T8 120V-277V Normal Light .88 BF <10% THD UltraStart®	67	96719		10
71832	GE432-MVPS-L	4 – F32T8 120V-277V Low Watts .71 BF <10% THD UltraStart®	67			10
29678	GE-432-MVPS-H	4 – F32T8 120V-277V High Light 1.15 BF <10% THD UltraStart®	68	29657		8
T8 Dimming						
For F17 (2 ft), F25 (3 ft), F32 (4 ft) Lamps						
80353	B132R120V5	1 – F32T8 DIM 100 to 5% RS 120	69			10
80355	B232SR120V5	2 – F32T8 DIM 100 to 5% RS 120	69			10
80362	B232SR277S50	2 – F32T8 Switch 100/50% RS 277	70			10
80356	B232SR277V5	2 – F32T8 DIM 100 to 5% RS 277	70			10
80357	B332SR120V5	3 – F32T8 DIM 100 to 5% RS 120	71			10
80358	B332SR277V5	3 – F32T8 DIM 100 to 5% RS 277	71			10

Quick reference ballast selection guide (cont.)

T8 Fluorescent Ballasts

2008 T8 Ballast Enhancement New Product Code Cross Reference					
Prod Code				Product Page Number	Units Per Carton
Existing	New	Description (Same)	Application		
UltraMax® Instant-Start Multi-Voltage High-Efficiency					
49706	72258	GE132MAX-L/ULTRA	1- F32T8 120 to 277 "L" .77BF UltraMax®	38	10
49771	72259	GE132MAX-N/ULTRA	1- F32T8 120 to 277"N" .87 BF UltraMax®	38	10
23939	72260	GE132MAX-N-DIY	1- F32T8 120 to 277"N" .87 BF UltraMax® DIY Pack		4
49707	72262	GE232MAX-L/ULTRA	2 or 1- F32T8 120 to 277 "L" .77 BF UltraMax®	39	10
47546	72263	GE232MAX-L-42T	2 or 1- F32T8 120 to 277 "L" .77 BF UltraMax® Pallet Pack		420
71281	72264	GE232MAX-N/AMP	2 or 1- F32T8 120 to 277 "N" .87 BF UltraMax® w/ AMP Connectors		10
97656	72265	GE232MAX-N/CTR	2 or 1- F32T8 120 to 277 "N" .87 BF UltraMax® w/ JST Connectors		10
49772	72266	GE232MAX-N/ULTRA	2 or 1- F32T8 120 to 277 "N" .87 BF UltraMax®	40	10
31052	72267	GE232MAX-N-42T	2 or 1- F32T8 120 to 277 "N" .87 BF UltraMax® Pallet Pack		420
23940	72268	GE232MAX-N-DIY	2 or 1- F32T8 120 to 277 "N" .87 BF UltraMax® DIY Pack		10
49776	71714	GE332MAX-H/ULTRA	3 or 2- F32T8 120 to 277 "H" 1.18 BF UltraMax®	41	10
47549	71715	GE332MAX-H-42T	3 or 2- F32T8 120 to 277 "H" 1.18 BF UltraMax® Pallet Pack		420
49708	71717	GE332MAX-L/ULTRA	3 or 2- F32T8 120 to 277 "L" .77 BF UltraMax®	41	10
31055	71718	GE332MAX-L-42T	3 or 2- F32T8 120 to 277 "L" .77 BF UltraMax® Pallet Pack		420
97657	71720	GE332MAX-N/CTR	3 or 2- F32T8 120 to 277 "N" .87 BF UltraMax® w/ JST Connectors		10
49773	71719	GE332MAX-N/ULTRA	3 or 2- F32T8 120 to 277 "N" .87 BF UltraMax®	42	10
31053	71721	GE332MAX-N-42T	3 or 2- F32T8 120 to 277 "N" .87 BF UltraMax® Pallet Pack		420
23941	71722	GE332MAX-N-DIY	3 or 2- F32T8 120 to 277 "N" .87 BF UltraMax® DIY Pack		4
49777	71723	GE432MAX-H/ULTRA	4 or 3- F32T8 120 to 277 "H" 1.18 BF UltraMax®	43	10
47550	71724	GE432MAX-H-42T	4 or 3- F32T8 120 to 277 "H" 1.18 BF UltraMax® Pallet Pack		420
49709	71725	GE432MAX-L/ULTRA	4 or 3- F32T8 120 to 277 "L" .77 BF UltraMax®	43	10
47547	71726	GE432MAX-L-42T	4 or 3- F32T8 120 to 277 "L" .77 BF UltraMax® Pallet Pack		420
97658	71728	GE432MAX-N/CTR	4 or 3- F32T8 120 to 277 "N" .87 BF UltraMax® w/ JST Connectors		10
49774	71727	GE432MAX-N/ULTRA	4 or 3- F32T8 120 to 277 "N" .87 BF UltraMax®	44	10
31054	71729	GE432MAX-N-42T	4 or 3- F32T8 120 to 277 "N" .87 BF UltraMax® Pallet Pack		420
23942	71730	GE432MAX-N-DIY	4 or 3- F32T8 120 to 277 "N" .87 BF UltraMax® DIY Pack		4
ProLine® T8 Multivolt 120-277V					
30189	72269	GE-132-MV-N	1- F32T8 120 to 277 "N".87 BF Multivolt ProLine®	46	10
30268	72270	GE-132-MV-N-42T	1- F32T8 120 to 277 "N".87 BF Multivolt ProLine® Pallet Pack		420
30247	72273	GE-232-MV-L	2 or 1- F32T8 120 to 277 "L".77 BF Multivolt ProLine®	47	10
30308	72274	GE-232-MV-L-42T	2 or 1- F32T8 120 to 277 "L".77 BF Multivolt ProLine® Pallet Pack		420
30191	72275	GE-232-MV-N	2 or 1- F32T8 120 to 277 "N".87 BF Multivolt ProLine®	47	10
30269	72276	GE-232-MV-N-42T	2 or 1- F32T8 120 to 277 "N".87 BF Multivolt ProLine® Pallet Pack		420
97709	72277	GE232MV-N-DIY	2 or 1- F32T8 120 to 277 "N".87 BF Multivolt ProLine® Pallet Pack DIY Pack		4

Std Pack Prod Code	Description	Application	Product Page Number	Pallet Pack	DIY Pack	Std Pack Units Per Carton
T5 Fluorescent Ballasts						
T5 ELECTRONIC PROGRAMMED START BALLASTS						
T5 High Efficiency Programmed Start						
For F14 (2 ft), F21 (3 ft), F28 (4 ft), F35 (5 ft) HE T5 Lamps						
99653	GE228MVPSH-A	2 or 1 - F14-F28T5HE 120 to 277 UltraStart® PRS High Light 1.15 BF A Can	77	99654		10
99655	GE228MVPS-A	2 or 1 - F14-F35T5HE 120 to 277 UltraStart® PRS Normal Light .95 BF A Can	77	99656		10
47536	B228PUNV-COG1C	2 - F28T5 PRS UNV 50/60 Hz C Can	78			10
T5 High Output Programmed Start						
For F24 (2 ft), F39 (3 ft), F54 (4 ft), F80 (5 ft) HO T5 Lamps						
47534	B224PUNV-COG1C	2 - F24T5HO PRS UNV 50/60 Hz C Can	79			10
47540	B239PUNV-DOG1C	2 - F39T5HO PRS UNV 50/60 Hz D Can	79			10
99651	GE254MVPS90-F	2 or 1 - F54T5HO 120 to 277 UltraStart® PRS High Temp F Can	80	99652		10
47542	B254PUNV-DGE1C	2 - F54T5HO PRS UNV 50/60 Hz D Can	80			10
72279	GE254MVPS-D	2 or 1 - F54T5HO 120 to 277 UltraStart® PRS D Can				10
99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81	99650		8
29726	GE454MVPSN1	4,3,2, or 1 - F54T5HO 120-277V UltraStart® PRS Can	81	29717		12
72280	GE180MVPS-D	1 - F80T5HO 120 to 277 UltraStart® PRS D Can				10
T5 lamp lengths are noted to nearest foot and are not exact lengths as noted in feet. See GE Lamp Catalog for exact lamp length.						
T12 Fluorescent Ballasts						
T12 ELECTRONIC BALLASTS						
ProLine® T12 Multivolt 120V - 277V						
For F20 (2 ft), F30 (3 ft), and F34/F40 (4 ft) T12 Lamps						
24107	GE-240-RS-MV-N	2 or 1 - F40 or F34T12 Rapid Start 120 to 277 "N" BF ProLine® T12	85		24773	10
97498	GE240RS120	2 - F40 or F34T12 Rapid Start 120V "N" BF ProLine® T12	85		97499	10
72110	GE140RS120-DIY	1 - F40 or F34T12 Rapid Start Electronic 120V "N" BF DIY Pack	86		72110	
24109	GE-340-RS-MV-N	3 or 2 - F40 or F34T12 Rapid Start 120 to 277 ProLine® T12	86		24774	10
For T12 4 ft - 8 ft Slimline Lamps						
24108	GE-260-IS-MV-N	2 or 1 - F96T12 Instant Start 120 to 277	87		24776	10
T12 HIGH OUTPUT						
80162	B295SR120HP	2 - F96T12HOES RS 120	88			6
80163	B295SR277HP	2 - F96T12HOES RS 277	88			6
72109	GE296HO-MV-N	2 or 1 - F96T12 HO RS 120 to 277 Multivolt ProLine®	89			
T12 MAGNETIC BALLASTS						
For 2 ft, Circleline, Preheat T12 Lamps						
89711	GEM120PH120DIY	1 - F20T12, F15T8, F1512, F14T8, F18T8, 120V Magnetic Ballast (200H2)	90		89711	10
89712	GEM120TC120DIY	1 - F20T12, F15T8, F15T12, F14T12, 120V Magnetic Ballast (546BTCP)	90		89712	4
89720	GEM1FC16T9RS120	2 - FC12T9, FC16T9, FC8T9, FC12T9, 120V Magnetic (726VLHWSTCP)	91		89720	4
86227	GEM1FC8T9RS120IP	1 - FC8T9, FC6T9 RS 120V Magnetic Ballast (547RSWSTCP)	91		89722	10
89717	GEM1FC12T9RS120	2 FC12T9 RS 120V Magnetic Ballast (449LRWSTCP)	92		89717	
80819	GEM220TS120DIY	2- F20T12, F15T8, F15T12, F14T12, 120V Magnetic Ballast (447LRVLTCP)	92		80819	4

Quick reference ballast selection guide (cont.)

Std Pack Prod Code	Description	Application	Product Page Number	Pallet Pack	DIY Pack	Std Pack Units Per Carton
T12 Fluorescent Ballasts						
For F30, F34/F40 (4 ft) T12 Lamps						
89714	GEM140HRS120DIY	1 - F40T12, F40T12, 120V Magnetic Ballast (412LSLHTCP)	93		89714	4
89709	GEM140RS120DIY	1 - F40T12, F30T12, F48/25W, 120V Magnetic Ballast (413CTCP)	93		89709	4
80644	GEM230RS120DIY	2 - F30T12 120V Magnetic Ballast (573LTCP)	94		80644	4
89710	GEM240HRS120DIY	2 - F40T12, F40T12, 120V Magnetic Ballast (420LTCP)	94		89710	4
86139	GEM240RS120IP	2 - F40T12 RS 120V Magnetic Ballast (446LSLHTCP)	95		46958	10
86124	GEM240RS277IP	2 - F40T12 RS 277V Magnetic Ballast (443LSLHTCP)	95		89713	10
86341	GEM240RS220IP	2 - F40T12, F40T10, 220V Magnetic Ballast (754LTCP)	96			10
For T12 4 ft - 8 ft Slimline Lamps						
86372	GEM196IS120IP	1 - F96T12 IS 120 Magnetic Ballast (822BRTCP)	97		86372	6
86381	GEM196IS277IP	1 - F96T12 IS 277 Magnetic Ballast (828BRTCP)	97			6
86360	GEM296IS120IP	2 - F96T12 IS 120V Magnetic Ballast (806SLHTCP)	98		46965	6
86379	GEM296IS277IP	2 - F96T12 IS 277V Magnetic Ballast (827SLHTCP)	98		89715	6
For T12 High Output Lamps						
86164	GEM296HORS120IP	2 - F96T12HO, F96T8HO, F72T12HO RS 120V Magnetic Ballast (480SLHTCP)	99		89718	4
86171	GEM296HORS277IP	2 - F96T12HO, F96T8HO, RS 277V Magnetic Ballast (487SLHTCP)	99			4
80664	493B2	2 - F73T12/BL/HO Suntan 120 Magnetic Ballast	100			10
FLUORESCENT ACCESSORIES						
Starters						
80619	FS-2-C	Starters for 14, 15 & 20 Watt Flu. Lamps	100			24
80620	FS-4-C	Starters for 30 & 40 Watt Flu. Lamps	100			24
80621	FS-5-C	Starters for 4, 6 & 8 Watt Flu. Lamps	100			24
80622	FS-25-C	Starters for 22 & 25 Watt Flu. Lamps	100			24
80629	FS-12-C	Starters for 32 Watt Circular Flu. Lamps	100			24
Sockets						
80623	BP-SKT	Socket Set w/Starter for Bi-Pin Flu. Lamps	100			12
80624	BP	Socket Set for Bi-Pin Flu. Lamps	100			12
80625	SL-SS	Socket Set for Slimline Flu. Lamps	100			12
80627	BP-FM	Face Mount Socket Set for Bi-Pin Flu. Lamps	100			12
80628	BP-LP	Low Profile Socket Set for Bi-Pin Flu. Lamps	100			12
Sign Ballasts						
For T12 High Output Lamps						
72103	GESB-0412-12-IP	T12HO Sign ballast, 4 to 12 ft, 1 to 2 lamps	107			1
72104	GESB-0620-24-IP	T12HO Sign ballast 6 to 20 ft, 2 to 4 lamps	107			1
72105	GESB-1224-24-IP	T12HO Sign ballast 12 to 24 ft, 2 to 4 lamps	108			1
72106	GESB-1240-46-IP	T12HO Sign Ballast 12 to 40 ft, 4 to 6 lamps	108			1
72107	GESB-2040-24-IP	T12HO Sign Ballast 20 to 40 ft, 4 to 6 lamps	109			1
72108	GESB-2448-46-IP	T12HO Sign Ballast 24 to 48 ft, 4 to 6 lamps	109			1
88921	USB-0412-12-IP	4 to 12 ft, 1 to 2 lamps	110			
88931	USB-0816-14-IP	08 to 16 ft, 1 to 4 lamps	110			4
88934	USB-1632-24-IP	16 to 32 ft, 2 to 4 lamps	111			2
88936	USB-1024-14-IP	10 to 24 ft, 1 to 4 lamps	111			2
88939	USB-2036-46-IP	20 to 36 ft, 4 to 6 lamps	112			2
88940	USB-2048-46-IP	20 to 48 ft, 4 to 6 lamps	112			2
88918	USB-0218-16-IP	Max 3, 02 to 18 ft, 1 to 6 lamps	113			2
88919	USB-1048-16-IP	Max 3, 10 to 48 ft, 1 to 6 lamps	113			2
88920	USB-1232-16-IP	Max 3, 12 to 32 ft, 1 to 6 lamps	114			2

Prod Code	Description	Application	Product Page Number	Bottom Exit with Studs	Dual Exit/Bottom and side	3-Way Mounting	Units Per Carton
Compact Fluorescent Ballasts							
ProLine® CFL Electronic Ballasts							
For 13 - 42W T4 CFL Lamps							
71430	GEC213-MVPS-3W	2 or 1 - CFQ13W/G24q Bottom Exit 120-277V ProLine® PS	123	71428	71429	71430	10
71434	GEC218-MVPS-3W	2 or 1 - CFQ18W/G24q Bottom Exit 120-277 ProLine® PS	123	71432	71433	71434	10
71445	GEC226-MVPS-3W	2 - CFQ26W, FT24 or 1-42W, CFTR32 Bottom Exit 120-277V ProLine® PS	124	71443	71444	71445	10
47509	C242UNVSE-IP	2 - 42/36/32/26/24 watt CFLUNV side exit	124		47506		10
For 40W Biax® CFL Ballasts							
80683	C240PUNVHP-B-IP	2 or 1 - FT40W/2G11 PS UNV	125				10
80680	C240SI120RH-IP	2 - FT40W/2G11 IS 120	125				10
80681	C240SI277RH-IP	2 - FT40W/2G11 IS 277	126				10
80690	C340SI120RH-IP	3 - FT40W/2G11 IS 120	126				10
80691	C340SI277RH-IP	3 - FT40W/2G11 IS 277	127				10
For 5 - 26W Preheat CFL Lamps							
87634	GEM1CF579PH277	1 - CFT579Q9W/G23 Preheat 277 (4205F2P)	128				20
87533	GEM1CF13PH120	1 - CFT/Q13W/GX23 Preheat 120 (4111H2P)	128				20
CFL Magnetic Ballasts							
For 5 - 26W Preheat CFL Lamps							
87655	GEM2CF13PH277	2 - CFT/Q13W/GX23 Preheat 277 (4214PBES)	129				10
87700	GEM2CF24PH277	2 - CFQ26W/G24d Preheat 277 (4226PBES)	129				10
For 36 - 40W CFL Lamps							
87623	GEM2FT36RS120	2 - FT36W/2G11 RS 120 (4150P)	130				10
87625	GEM2FT40RS120	2 - FT40W/2G11RS RS 120 (4152P)	130				10

Quick reference ballast selection guide (cont.)

Prod Code	Description	Application	Product Page Number	ANSI Lamp Type	Circuit Type	Units Per Carton
HID Electronic Ballasts						
For 20 – 150W Pulse Start HID Lamps						
87490	GEMH20-MLF-120	1 – 20W M156 120V Electronic HID	135	M156	Electronic	10
87501	GEMH39-MSF-120	1 – 39W M130 120V Electronic HID	135	M130	Electronic	10
87516	GEMH50-MSF-120	1 – 50W M110 M/C148 120V Electronic HID	136	M148, M110, C148	Electronic	10
87531	GEMH70-MSF-120	1 – 70W M98 M/C143 120V Electronic HID	136	M98, M143, M139, C143, C139	Electronic	10
87546	GEMH70-SLJ-MV	1 – 70W M98 M/C143 120V-277V Electronic HID	137	M139, C139, M98, M143, C143	Electronic	10
87561	GEMH100-SLJ-MV	1 – 100W M90 M/C140 120V-277V Electronic HID	137	M90, M140, C140	Electronic	10
87576	GEMH150-SLJ-MV	1 – 150W M102 M/C142 120V-277V Electronic HID	138	M142, M102, C142	Electronic	10
For 250W – 400W Pulse Start HID Lamps						
29377	GE-MH-250-400-MA	1 – 250 to 400W UltraMax® HID Electronic 208-277 50-60Hz	139	M155, M153, M138, M135, M132, M131, M154	Electronic	1
89646	GEMH250-400M-V50	1 – 250 to 400W UltraMax® HID Dimming 208-277 50-60Hz	139	M155, M154, M153, M138, M135, M132, M131	Electronic	1
HID Electromagnetic Ballasts						
Metal Halide						
For 20 – 175W Metal Halide HID Lamps						
86824	GEM50MLTLC3D-5	1 – 50W MH M110 or M148 Quad (120/208/240/277V)	144	M110	HX-HPF	6
86847	GEM70MLTLC3D-5	1 – 70W MH M98 or M143 Quad (120/208/240/277V)	144	M98	HX-HPF	6
86839	GEM7048TLC3D-5	1 – 70W MH M98 or M143 480	145	M98	HX-HPF	6
86675	GEM100MLTLC3D-5	1 – 100W MH M90 or M140 Quad (120/208/240/277V)	145	M92, M90, M140	HX-HPF	6
86667	GEM10048TLC3D-5	1 – 100W MH M90 or M140 480	146	M92, M90, 40	HX-HPF	6
86718	GEM150MLTLC3D-5	1 – 150W MH M102 or M142 Quad (120/208/240/277V)	146	M142, M102	HX-HPF	6
86711	GEM15048TLC3D-5	1 – 150W MH M102 or M142 480	147	M142, M102, M107	HX-HPF	6
87210	GEM175ML5AC3-5	1 – 175W MH M57 or H39 5-Tap (120/208/240/277/480V)	147	M57, H39, M109	CWA	6
86741	GEM175MLTAC3-5	1 – 175W MH M57 or H39 Quad (120/208/240/277V)	148	M57, M107, H39	CWA	6
For 250 – 1500W Metal Halide HID Lamps						
87211	GEM250ML5AC3-5	1 – 250W MH M58 or H37 5-Tap (120/208/240/277/480V)	149	M58, H37	CWA	6
86765	GEM250MLTAC3-5	1 – 250W MH M58 or H37 Quad (120/208/240/277V)	149	M58, H37	CWA	6
87212	GEM250ML5AC4-5	1 – 250W MH M58 or H37 5-Tap (120/208/240/277/480V)	150	M58, H37	CWA	3
72300	GEM400ML5AA4-5	1 – 400W MH M59 or H33 5-Tap (120/208/240/277/480V) AI C&C	150	M59, H33	CWA	3
72149	GEM400MLTAA4-5	1 – 400W MH M59 or H33 Quad (120/208/240/277V) AI C&C	151	M59, H33	CWA	3
86803	GEM40048TAC4-5	1 – 400W MH M59 or H33 480	151	M59, H33	CWA	3
86650	GEM100048TAC5-5	1 – 1000W MH M47 or H36 480	152	M47, H36	CWA	2
87213	GEM1000ML5AA5-5	1 – 1000W MH M47 or H36 5-Tap (120/208/240/277/480V)	152	M47, H36	CWA	2
86655	GEM1000MLTAA5-5	1 – 1000W MH M47 or H36 Quad (120/208/240/277V)	153	M47, H36	CWA	2
86693	GEM150048TAC5-5	1 – 1500W MH M48 480	153	M48	CWA	2
86698	GEM1500MLTAC5-5	1 – 1500W MH M48 Quad (120/208/240/277V)	154	M48	CWA	2

Prod Code	Description	Application	Product Page Number	ANSI Lamp Type	Circuit Type	Units Per Carton
HID Electromagnetic Ballasts						
Pulse Start						
For 175 – 1000W Pulse Start Metal Halide HID Lamps						
86885	GEP175MLTAC3-5	1 – 175W PS M137 or M152 Quad (120/208/240/277V)	155	M153, M137	CWA	6
86876	GEP17548TAC3-5	1 – 175W PS M137 or M152 480	155	M152, M137	CWA	6
86935	GEP250MLTAC4-5	1 – 250W PS M138 or M153 Quad (120/208/240/277V)	156	M153, M138	CWA	3
86926	GEP25048TAC4-5	1 – 250W PS M138 or M153 480	156	M153, M138	CWA	3
86959	GEP320MLTAC4-5	1 – 320W PS M132 or 154 Quad (120/208/240/277V)	157	M154, M132	CWA	3
86952	GEP32048TAC4-5	1 – 320W PS M132 or M154 480	157	M154, M132	CWA	3
86968	GEP320TRIAC4-5	1 – 320W PS M132 or M154 TRI-Voltage 120 277 347	158	M154, M132	CWA	3
86984	GEP350MLTAC4-5	1 – 350W PS M131 Quad (120/208/240/277V)	158	M131	CWA	3
86999	GEP40048TAC4-5	1 – 400W PS M135 or M155 480	159	M155, M135	CWA	3
87008	GEP400MLTAC4-5	1 – 400W PS M135 or M155 Quad (120/208/240/277V)	159	M155, M135	CWA	3
46936	GEP75048TAC5-5	1 – 750W PS M149 480	160	M149	CWA	2
46934	GEP750MLTAC5-5	1 – 750W PS M149 Quad (120/208/240/277V)	160	M149	CWA	2
72281	GEP1000MLTAC5-5	1 – 1000W PS M141 Quad (120/208/240/277V)	161	M141	CWA	2
72282	GEP1000ML5AC5-5	1 – 1000W PS M141 5-Tap (120/208/240/277/480V)	161	M141	CWA	2
High-Pressure Sodium						
For 50 – 150W High Pressure Sodium HID Lamps						
87152	GES50MLTLC3D-5	1 – 50W HPS S68 Quad (120/208/240/277V)	162	S68	HX-HPF	6
86587	GES70MLTLC3D-5	1 – 70W HPS S62 Quad (120/208/240/277V)	162	S62	HX-HPF	6
86456	GES7048TLC3D-5	1 – 70W HPS S62 480V	163	S62	HX-HPF	6
87074	GES100MLTLC3D-5	1 – 100W HPS S54 Quad (120/208/240/277V)	163	S54	HX-HPF	6
87068	GES10048TLC3D-5	1 – 100W HPS S54 480V	164	S54	HX-HPF	6
87094	GES150MLTLC3D-5	1 – 150W HPS S55 Quad (120/208/240/277V)	164	S55	HX-HPF	6
87087	GES15048TLC3D-5	1 – 150W HPS S55 480V	165	S55	HX-HPF	6
For 250 – 1000W High Pressure Sodium HID Lamps						
87214	GES250ML5AC4-5	1 – 250W HPS S50 5-Tap (120/208/240/277/480V)	166	S50	CWA	3
87121	GES250MLTAC4-5	1 – 250W HPS S50 Quad (120/208/240/277V)	166	S50	CWA	3
87215	GES400ML5AC4-5	1 – 400W HPS S51 5-Tap (120/208/240/277/480V)	167	S51	CWA	3
87164	GES400MLTAC4-5	1 – 400W HPS S51 Quad (120/208/240/277V)	167	S51	CWA	3
87198	GES40048TAC4-5	1 – 400W HPS S51 480V in smaller frame	168	S51	CWA	3
87048	GES100048TAC5-5	1 – 1000W HPS S52 480V	168	S52	CWA	2
87218	GES1000ML5AC5-5	1 – 1000W HPS S52 5-Tap (120/208/240/277/480V)	169	S52	CWA	2
87056	GES1000MLTAC5-5	1 – 1000W HPS S52 Quad (120/208/240/277V)	169	S52	CWA	2

Quick reference ballast selection guide (cont.)

Prod Code	Description	Application	Product Page Number	ANSI Lamp Type	Circuit Type	Units Per Carton
HID Electromagnetic Ballasts						
High Intensity Discharge Lamp Ballast Kits						
71701	GEM175ML5AC3-55	1 - 175W MH M57 or H39 5-Tap (120/208/240/277/480V) Lamp & Ballast Kit (-55)	170	M57 Mogul Base Elliptical Lamp	CWA	1
71702	GEM250ML5AC3-55	1 - 250W MH M58 or H37 5-Tap (120/208/240/277/480V) Lamp & Ballast Kit (-55)	170	M58 Mogul Base Elliptical Lamp	CWA	1
71703	GEM400ML5AC4-55	1 - 400W MH M59 or H33 5-Tap (120/208/240/277/480V) Lamp & Ballast Kit (-55)	171	M59 Mogul Base Elliptical Lamp	CWA	1
71704	GEM1000ML5AC4-55	1 - 1000W MH M47 or H36 5-Tap (120/208/240/277/480V) Lamp & Ballast Kit (-55)	171	M47 Mogul Base Elliptical Lamp	CWA	1
71705	GES100MLTLC3D-55	1 - 100W HPS S54 Quad (120/208/240/277V) Lamp & Ballast Kit (-55)	172	S54 Medium Base Elliptical Lamp	HX-HPF	1
71706	GES250ML5AC4-55	1 - 250W HPS S50 5-Tap (120/208/240/277/480V) Lamp & Ballast Kit (-55)	172	M50 Mogul Base ED18 Lamp	CWA	1
71707	GES400ML5AC4-55	1 - 400W HPS S51 5-Tap (120/208/240/277/480V) Lamp & Ballast Kit (-55)	173	S51 Mogul Base ED18 Lamp	CWA	1
Enclosed and Potted Metal Halide						
86576	11210277CTC000C	1 - 70W M85 120/277 Enclosed & Potted	174	M85	HX-HPF	4
86578	11210506CTC000C	1 - 70W M98 120/277 Enclosed & Potted	174	M98	HX-HPF	4
86574	11210239CTC000I	1 - 100W M90 120/277 Enclosed & Potted	175	M90	HX-HPF	4
86563	1110245SCTC000I	1 - 175W M57 120/277 Enclosed & Potted	175	M57, H39	CWA	2
86564	1110246CTC000C	1 - 250W M58 120/277 Enclosed & Potted	176	M58, H37	CWA	2
42670	1110-247SC-TC	1 - 400W M59 120/277 Enclosed & Potted F-can	176	M59, H33	CWA	2
80728	1111-247SCTC000I	1 - 400W M59 120/277 Enclosed & Potted	177	M59, H33	CWA	4
F-Can and Post Mount High Pressure Sodium						
86605	1233142U000I	1 - 70W S62 120 Reactor-NPF	178	S62	R-HPF, R-NPF	6
86596	12210237CTC000I	1 - 70W S62 120/277 E and P F-Can built-in starter	178	S62	HX-HPF	4
86606	1233154U000I	1 - 150W S55 120 Reactor-NPF	179	S55	R-NPF	6

Prod Code	Description	Application	Product Page Number	ANSI Lamp Type	Circuit Type	Units Per Carton
HID Electromagnetic Ballasts						
HID ACCESSORIES						
Replacement Capacitors						
						20
88980	005-1184-MF	10.0 MFD 400V 90C 2.4 MEG 1.50 oval 2.7 ht	179			20
88982	005-1185-MF	15.0 MFD 400V 90C 1.6 MEG 1.75 oval 2.7 ht	179			20
89007	005-1422-MF	48.0 MFD 300V 90C 0.6 MEG 1.75 oval 3.9 ht	179			20
89077	005-2779-MF	24.0 MFD 480V 90C 1.75 oval 3.9 ht	179			20
89083	005-3160-MF	24.0 MFD 360V 90C 1.0 MEG 1.75 oval 3.1 ht	179			20
Replacement Ignitors for Pulse Start lamps - (MH and HPS)						
86864	MH100-3A	Ignitor for MH 30 50 70 100	179			20
86635	HPS150-3A	Ignitor HPS 150 watts or less except 150W-S56	179			20
86641	HPS400-3A	Ignitor HPS 200-400 watts & 150W S56	179			10
Other Accessories						
47621	000-8724	HIDP Adjustable Mounting Bracket Hardware Kit	179			100
86467	001-2009	Splice Box	179			10
86468	004-9177	Adjustable Mounting Bracket For 4" HID	179			50
86624	2BMB1000C	HID Parts E&P Mounting Bracket	179			50

Quick reference lamp to ballast selection guide

Lamp Type	# of Lamps	Voltage	Fluorescent Ballast Type	Ballast Product Code	Ballast Description	Fluorescent Ballast Long Description	Prod Code Page No
Linear Fluorescent Lamps							
F13T5	2	120-277	Electronic - Program / Rapid Start	71430	GEC213-MVPS-3W	2 or 1 - CFQ13W/G24q 120-277V ProLine® PS 3-Way Kit	123
	2	120-277	Electronic - Program / Rapid Start	71427	GEC213-MVPS-XX	2 or 1 - CFQ13W/G24q Bottom Exit 120-277V ProLine® PS	44
F14T12	1	120	Magnetic - Rapid Start	89712	GEM120TC120DIY	1 - F20T12 F15T8 F15T12 F14T12 120V Magnetic Ballast (546BTC)	90
	2	120-277	Electronic - Program / Rapid Start	47536	B228PUNV-COG1C	2 - F28T5 PRS UNV 50/60 Hz	78
	2	120-277	Electronic - Program / Rapid Start	99655	GE228MVPS-A	2 or 1 - F14-F35HE 120 to 277 UltraStart® PRS Normal Light .95 BF A Can	77
	2	120-277	Electronic - Program / Rapid Start	99653	GE228MVPSH-A	2 or 1 - F14-F35HE 120 to 277 UltraStart® PRS High Light 1.15 BF A Can	77
F14T5/HE	2	120-277	Electronic - Program / Rapid Start	71430	GEC213-MVPS-3W	2 or 1 - CFQ13W/G24q 120-277V ProLine® PS 3-Way Kit	123
	2	120-277	Electronic - Program / Rapid Start	71429	GEC213-MVPS-XX	2 or 1 - CFQ13W/G24q Bottom Exit 120-277V ProLine® PS	123
	1	120-277	Electronic - Program / Rapid Start	47536	B228PUNV-COG1C	2 - F28T5 PRS UNV 50/60 Hz	78
	1	120-277	Electronic - Program / Rapid Start	99655	GE228MVPS-A	2 or 1 - F14-F35HE 120 to 277 UltraStart® PRS Normal Light .95 BF A Can	77
	1	120-277	Electronic - Program / Rapid Start	99653	GE228MVPSH-A	2 or 1 - F14-F35HE 120 to 277 UltraStart® PRS High Light 1.15 BF A Can	77
F14T5/WM	2	120-277	Electronic - Program / Rapid Start	99655	GE228MVPS-A	2 or 1 - F14-F35HE 120 to 277 UltraStart® PRS Normal Light .95 BF A Can	77
	2	120-277	Electronic - Program / Rapid Start	99653	GE228MVPSH-A	2 or 1 - F14-F35HE 120 to 277 UltraStart® PRS High Light 1.15 BF A Can	77
	1	120-277	Electronic - Program / Rapid Start	99655	GE228MVPS-A	2 or 1 - F14-F35HE 120 to 277 UltraStart® PRS Normal Light .95 BF A Can	77
	1	120-277	Electronic - Program / Rapid Start	99653	GE228MVPSH-A	2 or 1 - F14-F35HE 120 to 277 UltraStart® PRS High Light 1.15 BF A Can	77
F14T8	1	120	Magnetic - Rapid Start	89711	GEM120PH120DIY	1 - F20T12 F15T8 F15T12 120V Magnetic Ballast (200H2)	90
	2	120	Magnetic - Rapid Start	80819	GEM220TS120DIY	2 - F20T12 F15T8 F15T12 F14T12 120V Magnetic Ballast (447LRVLHTCP)	92
F15T12	1	120	Magnetic - Rapid Start	89711	GEM120PH120DIY	1 - F20T12 F15T8 F15T12 120V Magnetic Ballast (200H2)	90
	1	120	Magnetic - Rapid Start	89712	GEM120TC120DIY	1 - F20T12 F15T8 F15T12 F14T12 120V Magnetic Ballast (546BTC)	90
	2	120	Magnetic - Rapid Start	80819	GEM220TS120DIY	2 - F20T12 F15T8 F15T12 F14T12 120V Magnetic Ballast (447LRVLHTCP)	92
F15T8	1	120	Magnetic - Rapid Start	89711	GEM120PH120DIY	1 - F20T12 F15T8 F15T12 120V Magnetic Ballast (200H2)	90
	1	120	Magnetic - Rapid Start	89712	GEM120TC120DIY	1 - F20T12 F15T8 F15T12 F14T12 120V Magnetic Ballast (546BTC)	90
	4	120-277	Electronic - High Efficiency Multivolt Instant Start	71423	GE432MAX-N+	4 or 3 - F32T8 120 to 277 "N+" 1.0 BF UltraMax®	44
	3	120-277	Electronic - High Efficiency Multivolt Instant Start	71422	GE332MAX-N+	3 or 2 - F32T8 120 to 277 "N+" 1.0 BF UltraMax®	42
	3	120-277	Electronic - High Efficiency Multivolt Instant Start	71422	GE332MAX-N+	3 or 2 - F32T8 120 to 277 "N+" 1.0 BF UltraMax®	42
	3	120-277	Electronic - High Efficiency Multivolt Instant Start	71423	GE432MAX-N+	4 or 3 - F32T8 120 to 277 "N+" 1.0 BF UltraMax®	44
	2	120-277	Electronic - High Efficiency Multivolt Instant Start	71421	GE232MAX-N+	2 or 1 - F32T8 120 to 277 "N+" 1.0 BF UltraMax®	40
	2	120-277	Electronic - High Efficiency Multivolt Instant Start	71422	GE332MAX-N+	3 or 2 - F32T8 120 to 277 "N+" 1.0 BF UltraMax®	42
	2	120-277	Electronic - High Efficiency Multivolt Instant Start	71422	GE332MAX-N+	3 or 2 - F32T8 120 to 277 "N+" 1.0 BF UltraMax®	42
	1	120-277	Electronic - High Efficiency Multivolt Instant Start	71421	GE232MAX-N+	2 or 1 - F32T8 120 to 277 "N+" 1.0 BF UltraMax®	40
F17T8	4	120-277	Electronic - High Efficiency Multivolt Instant Start	71723	GE432MAX-H/ULTRA	4 or 3 - F32T8 120 to 277 "H" 1.15 BF UltraMax®	44
	4	120-277	Electronic - High Efficiency Multivolt Instant Start	71725	GE432MAX-L/ULTRA	4 or 3 - F32T8 120 to 277 "L" .77 BF UltraMax®	43
	4	120-277	Electronic - High Efficiency Multivolt Instant Start	71727	GE432MAX-N/ULTRA	4 or 3 - F32T8 120 to 277 "N" .87 BF UltraMax®	44
	4	120-277	Electronic - Multivolt Instant Start	30219	GE-432-MV-H	4 or 3 - F32T8 120 to 277 "H" 1.15 BF Multivolt ProLine®	49
	4	120-277	Electronic - Multivolt Instant Start	30262	GE-432-MV-L	4 or 3 - F32T8 120 to 277 "L" .77 BF Multivolt ProLine®	50
	4	120-277	Electronic - Multivolt Instant Start	30193	GE-432-MV-N	4 or 3 - F32T8 120 to 277 "N" .87 BF Multivolt ProLine®	50
	4	120-277	Electronic - Multivolt Instant Start	30193	GE-432-MV-N	4 or 3 - F32T8 120 to 277 "N" .87 BF Multivolt ProLine®	50
	4	120-277	Electronic - Program / Rapid Start	29678	GE-432-MVPS-H	4 - F32T8 120V-277V High Light 1.15 BF <10% THD UltraStart®	68
	4	120-277	Electronic - Program / Rapid Start	96716	GE432-MVPS-N	4 - F32T8 120V-277V Normal Light .88 BF <10% THD UltraStart®	67
	4	277	Electronic - Standard Instant Start	23676	GE-432-277-N	4 or 3 - F32T8 277V "N" .87 BF ProLine®	56
	4	277	Electronic - Program / Rapid Start	29627	GE-432-277-PS-N	4 - F32T8 277V Normal Light .87 BF <10% THD UltraStart®	66
	4	120	Electronic - Standard Instant Start	23675	GE-432-120-N	4 or 3 - F32T8 120V "N" .87 BF ProLine®	62
	4	120	Electronic - Program / Rapid Start	29625	GE-432-120-PS-N	4 - F32T8 120V Normal Light .87 BF <10% THD UltraStart®	66
	4	120	Electronic - Standard Instant Start	97783	GE432-120-RES	4 or 3 F32T8 120V Normal Light Residential Grade FCC Class B	58
	3	120-277	Electronic - High Efficiency Multivolt Instant Start	71714	GE332MAX-H/ULTRA	3 or 2 - F32T8 120 to 277 "H" 1.15 BF UltraMax®	41
	3	120-277	Electronic - High Efficiency Multivolt Instant Start	71717	GE332MAX-L/ULTRA	3 or 2 - F32T8 120 to 277 "L" .77 BF UltraMax®	41
	3	120-277	Electronic - High Efficiency Multivolt Instant Start	71719	GE332MAX-N/ULTRA	3 or 2 - F32T8 120 to 277 "N" .87 BF UltraMax®	42

Lamp Type	# of Lamps	Voltage	Fluorescent Ballast Type	Ballast Product Code	Ballast Description	Fluorescent Ballast Long Description	Prod Code Page No
Linear Fluorescent Lamps							
	3	120-277	Electronic - Multivolt Instant Start	30199	GE-332-MV-H	3 or 2 - F32T8 120 to 277 "H" 1.15 BF Multivolt ProLine®	48
	3	120-277	Electronic - Multivolt Instant Start	30255	GE-332-MV-L	3 or 2 - F32T8 120 to 277 "L" .77 BF Multivolt ProLine®	48
	3	120-277	Electronic - Multivolt Instant Start	30192	GE-332-MV-N	3 or 2 - F32T8 120 to 277 "N" .87 BF Multivolt ProLine®	49
	3	120-277	Electronic - Program / Rapid Start	29676	GE-332-MVPS-H	3 - F32T8 120V-277V High Light 1.15 BF <10% THD UltraStart®	64
	3	120-277	Electronic - Program / Rapid Start	96721	GE332-MVPS-L	3 - F32T8 120V-277V Low Watts .71 BF <10% THD UltraStart®	65
	3	120-277	Electronic - Program / Rapid Start	96715	GE332-MVPS-N	3 - F32T8 120V-277V Normal Light .88 BF <10% THD UltraStart®	64
	3	120-277	Electronic - Program / Rapid Start	29672	GE-332-MVPS-XL	3 - F32T8 120V-277V Ultra Low Watt .60 BF <10% THD	65
	3	120-277	Electronic - High Efficiency Multivolt Instant Start	71723	GE432MAX-H/ULTRA	4 or 3 - F32T8 120 to 277 "H" 1.15 BF UltraMax®	43
	3	120-277	Electronic - High Efficiency Multivolt Instant Start	71725	GE432MAX-L/ULTRA	4 or 3 - F32T8 120 to 277 "L" .77 BF UltraMax®	43
	3	120-277	Electronic - High Efficiency Multivolt Instant Start	71727	GE432MAX-N/ULTRA	4 or 3 - F32T8 120 to 277 "N" .87 BF UltraMax®	44
	3	120-277	Electronic - Multivolt Instant Start	30219	GE-432-MV-H	4 or 3 - F32T8 120 to 277 "H" 1.15 BF Multivolt ProLine®	49
	3	120-277	Electronic - Multivolt Instant Start	30262	GE-432-MV-L	4 or 3 - F32T8 120 to 277 "L" .77 BF Multivolt ProLine®	50
	3	120-277	Electronic - Multivolt Instant Start	30193	GE-432-MV-N	4 or 3 - F32T8 120 to 277 "N" .87 BF Multivolt ProLine®	50
	3	120-277	Electronic - Multivolt Instant Start	30193	GE-432-MV-N	4 or 3 - F32T8 120 to 277 "N" .87 BF Multivolt ProLine®	50
	3	120-277	Electronic - Program / Rapid Start	29678	GE-432-MVPS-H	4 - F32T8 120V-277V High Light 1.15 BF <10% THD UltraStart®	68
	3	120-277	Electronic - Program / Rapid Start	96716	GE432-MVPS-N	4 - F32T8 120V-277V Normal Light .88 BF <10% THD UltraStart®	67
	3	277	Electronic - Standard Instant Start	23674	GE-332-277-N	3 or 2 - F32T8 277V "N" .87 BF ProLine®	55
	3	277	Electronic - Program / Rapid Start	29624	GE-332-277-PS-N	3 - F32T8 277V Normal Light .87 BF <10% THD UltraStart®	63
	3	277	Electronic - Standard Instant Start	23676	GE-432-277-N	4 or 3 - F32T8 277V "N" .87 BF ProLine®	56
	3	277	Electronic - Program / Rapid Start	29627	GE-432-277-PS-N	4 - F32T8 277V Normal Light .87 BF <10% THD UltraStart®	66
	3	120	Electronic - Standard Instant Start	23673	GE-332-120-N	3 or 2 - F32T8 120V "N" .87 BF ProLine®	55
	3	120	Electronic - Program / Rapid Start	29623	GE-332-120-PS-N	3 - F32T8 120V Normal Light .87 BF <10% THD UltraStart®	63
	3	120	Electronic - Standard Instant Start	23675	GE-432-120-N	4 or 3 - F32T8 120V "N" .87 BF ProLine®	56
	3	120	Electronic - Program / Rapid Start	29625	GE-432-120-PS-N	4 - F32T8 120V Normal Light .87 BF <10% THD UltraStart®	66
	3	120	Electronic - Standard Instant Start	97783	GE432-120-RES	4 or 3 F32T8 120V Normal Light Residential Grade FCC Class B	58
	2	120-277	Electronic - High Efficiency Multivolt Instant Start	49775	GE232MAX-H/ULTRA	2 or 1 - F32T8 120 to 277 "H" 1.15 BF UltraMax®	39
	2	120-277	Electronic - High Efficiency Multivolt Instant Start	72262	GE232MAX-L/ULTRA	2 or 1 - F32T8 120 to 277 "L" .77 BF UltraMax®	39
	2	120-277	Electronic - High Efficiency Multivolt Instant Start	72266	GE232MAX-N/ULTRA	2 or 1 - F32T8 120 to 277 "N" .87 BF UltraMax®	40
	2	120-277	Electronic - Multivolt Instant Start	30198	GE-232-MV-H	2 or 1 - F32T8 120 to 277 "H" 1.15 BF Multivolt ProLine®	46
	2	120-277	Electronic - Multivolt Instant Start	30198	GE-232-MV-H	2 or 1 - F32T8 120 to 277 "H" 1.15 BF Multivolt ProLine®	46
	2	120-277	Electronic - Multivolt Instant Start	72273	GE-232-MV-L	2 or 1 - F32T8 120 to 277 "L" .77 BF Multivolt ProLine®	47
	2	120-277	Electronic - Multivolt Instant Start	72275	GE-232-MV-N	2 or 1 - F32T8 120 to 277 "N" .87 BF Multivolt ProLine®	47
	2	120-277	Electronic - Multivolt Instant Start	72275	GE-232-MV-N	2 or 1 - F32T8 120 to 277 "N" .87 BF Multivolt ProLine®	47
	2	120-277	Electronic - Program / Rapid Start	29675	GE-232-MVPS-H	2 - F32T8 120V-277V High Light 1.15 BF <10% THD UltraStart®	62
	2	120-277	Electronic - Program / Rapid Start	96720	GE232-MVPS-L	2 or 1 F32T8 120V-277V Low Watts .71 BF <10% THD UltraStart®	61
	2	120-277	Electronic - Program / Rapid Start	96714	GE232-MVPS-N	2 or 1 - F32T8 120V-277V Normal Light .88 BF <10% THD UltraStart®	61
	2	120-277	Electronic - Program / Rapid Start	29671	GE-232-MVPS-XL	2 - F32T8 120V-277V Ultra Low Watt .60 BF <10% THD	62
	2	120-277	Electronic - High Efficiency Multivolt Instant Start	71714	GE332MAX-H/ULTRA	3 or 2 - F32T8 120 to 277 "H" 1.15 BF UltraMax®	41
	2	120-277	Electronic - High Efficiency Multivolt Instant Start	71717	GE332MAX-L/ULTRA	3 or 2 - F32T8 120 to 277 "L" .77 BF UltraMax®	41
	2	120-277	Electronic - High Efficiency Multivolt Instant Start	71719	GE332MAX-N/ULTRA	3 or 2 - F32T8 120 to 277 "N" .87 BF UltraMax®	42
	2	120-277	Electronic - Multivolt Instant Start	30199	GE-332-MV-H	3 or 2 - F32T8 120 to 277 "H" 1.15 BF Multivolt ProLine®	48
	2	120-277	Electronic - Multivolt Instant Start	30255	GE-332-MV-L	3 or 2 - F32T8 120 to 277 "L" .77 BF Multivolt ProLine®	48
	2	120-277	Electronic - Multivolt Instant Start	30192	GE-332-MV-N	3 or 2 - F32T8 120 to 277 "N" .87 BF Multivolt ProLine®	49
	2	120-277	Electronic - Program / Rapid Start	29676	GE-332-MVPS-H	3 - F32T8 120V-277V High Light 1.15 BF <10% THD UltraStart®	64
	2	120-277	Electronic - Program / Rapid Start	96721	GE332-MVPS-L	3 - F32T8 120V-277V Low Watts .71 BF <10% THD UltraStart®	65
	2	120-277	Electronic - Program / Rapid Start	96715	GE332-MVPS-N	3 - F32T8 120V-277V Normal Light .88 BF <10% THD UltraStart®	64
	2	120-277	Electronic - Program / Rapid Start	29672	GE-332-MVPS-XL	3 - F32T8 120V-277V Ultra Low Watt .60 BF <10% THD	65
	2	277	Electronic - Standard Instant Start	23672	GE-232-277-N	2 or 1 - F32T8 277V "N" .87 BF ProLine®	54
	2	277	Electronic - Program / Rapid Start	29622	GE-232-277-PS-N	2 - F32T8 277V Normal Light .87 BF <10% THD UltraStart®	60
	2	277	Electronic - Standard Instant Start	23674	GE-332-277-N	3 or 2 - F32T8 277V "N" .87 BF ProLine®	55
	2	277	Electronic - Program / Rapid Start	29624	GE-332-277-PS-N	3 - F32T8 277V Normal Light .87 BF <10% THD UltraStart®	63
	2	277	Magnetic - Rapid Start	87130	GEM232T8RS277	2 - F32T8 RS 277V Magnetic Ballast (M232SR277C)	59
	2	120	Electronic - Standard Instant Start	23671	GE-232-120-N	2 or 1 - F32T8 120V "N" .87 BF ProLine®	54
	2	120	Electronic - Program / Rapid Start	29621	GE-232-120-PS-N	2 - F32T8 120V Normal Light .87 BF <10% THD UltraStart®	60
	2	120	Electronic - Standard Instant Start	97782	GE232-120-RES	2 or 1 - F32T8 120V "N" .87 BF Residential ProLine®	58
	2	120	Electronic - Standard Instant Start	23673	GE-332-120-N	3 or 2 - F32T8 120V "N" .87 BF ProLine®	55
	2	120	Electronic - Standard Instant Start	23673	GE-332-120-N		

Quick reference lamp to ballast selection guide (cont.)

Lamp Type	# of Lamps	Voltage	Fluorescent Ballast Type	Ballast Product Code	Ballast Description	Fluorescent Ballast Long Description	Prod Code Page No	
Linear Fluorescent Lamps								
F40T10	3	120-277	Electronic - Program / Rapid Start	24109	GE-340-RS-MV-N	3 or 2 - F40 or F34T12 Rapid Start 120 to 277 ProLine® T12	86	
	2	120-277	Electronic - Program / Rapid Start	24107	GE-240-RS-MV-N	2 or 1 - F40 or F34T12 Rapid Start 120 to 277 "N" BF ProLine® T12	85	
	2	120-277	Electronic - Program / Rapid Start	24109	GE-340-RS-MV-N	3 or 2 - F40 or F34T12 Rapid Start 120 to 277 ProLine® T12	86	
	2	277	Magnetic - Rapid Start	86124	GEM240RS277IP	2 - F40T12 RS 277V Magnetic Ballast (443LSLHTCP)	95	
	2	120	Magnetic - Rapid Start	89710	GEM240HRS120DIY	2 - F40T12 F40T12 120V Magnetic Ballast (420LTCP)	94	
	2	120	Magnetic - Rapid Start	86139	GEM240RS120IP	2 - F40T12 RS 120V Magnetic Ballast (446LSLHTCP)	95	
	1	120-277	Electronic - Program / Rapid Start	24107	GE-240-RS-MV-N	2 or 1 - F40 or F34T12 Rapid Start 120 to 277 "N" BF ProLine® T12	85	
	1	120	Magnetic - Rapid Start	89714	GEM140HRS120DIY	1 - F40T12 F40T12 120V Magnetic Ballast (412LSLHTCP)	93	
	F40T12	2	220	Magnetic - Rapid Start	86341	GEM240RS220IP	2 - F40T12 F40T10 220V Magnetic Ballast (754LTCP)	96
		1	120	Electronic - Program / Rapid Start	72110	GE140RS120-DIY	1 - F40 or F34T12 Rapid Start Electronic 120V "N" BF DIY Pack	86
3		120-277	Electronic - Program / Rapid Start	24109	GE-340-RS-MV-N	3 or 2 - F40 or F34T12 Rapid Start 120 to 277 ProLine® T12	86	
2		120-277	Electronic - Program / Rapid Start	24107	GE-240-RS-MV-N	2 or 1 - F40 or F34T12 Rapid Start 120 to 277 "N" BF ProLine® T12	85	
2		120-277	Electronic - Program / Rapid Start	24109	GE-340-RS-MV-N	3 or 2 - F40 or F34T12 Rapid Start 120 to 277 ProLine® T12	86	
2		277	Magnetic - Rapid Start	86124	GEM240RS277IP	2 - F40T12 RS 277V Magnetic Ballast (443LSLHTCP)	95	
2		120	Electronic - Program / Rapid Start	97498	GE240RS120	2 F40 or F34T12 Rapid Start Electronic 120V "N" BF	85	
2		120	Electronic - Program / Rapid Start	97498	GE240RS120	2 F40 or F34T12 Rapid Start Electronic 120V "N" BF	85	
2		120	Magnetic - Rapid Start	89710	GEM240HRS120DIY	2 - F40T12 F40T12 120V Magnetic Ballast (420LTCP)	94	
2		120	Magnetic - Rapid Start	86139	GEM240RS120IP	2 - F40T12 RS 120V Magnetic Ballast (446LSLHTCP)	95	
F40T12/WM	1	120-277	Electronic - Program / Rapid Start	24107	GE-240-RS-MV-N	2 or 1 - F40 or F34T12 Rapid Start 120 to 277 "N" BF ProLine® T12	85	
	1	120	Electronic - Program / Rapid Start	72110	GE140RS120-DIY	1 F40 or F34T12 Rapid Start Electronic 120V "N" BF DIY Pack	86	
	1	120	Magnetic - Rapid Start	89714	GEM140HRS120DIY	1 - F40T12 F40T12 120V Magnetic Ballast (412LSLHTCP)	93	
	1	120	Magnetic - Rapid Start	89709	GEM140RS120DIY	1 - F40T12 F30T12 F48/25W 120V Magnetic Ballast (413CTCP)	93	
	1	120	Electronic - Program / Rapid Start	72110	GE140RS120-DIY	1 - F40 or F34T12 Rapid Start Electronic 120V "N" BF DIY Pack	86	
	2	277	Magnetic - Rapid Start	86124	GEM240RS277IP	2 - F40T12 RS 277V Magnetic Ballast (443LSLHTCP)	95	
	2	120	Magnetic - Rapid Start	86139	GEM240RS120IP	2 - F40T12 RS 120V Magnetic Ballast (446LSLHTCP)	95	
	3	120-277	Electronic - Program / Rapid Start	24109	GE-340-RS-MV-N	3 or 2 - F40 or F34T12 Rapid Start 120 to 277 ProLine® T12	86	
	2	120-277	Electronic - Program / Rapid Start	24109	GE-340-RS-MV-N	3 or 2 - F40 or F34T12 Rapid Start 120 to 277 ProLine® T12	86	
	2	120	Magnetic - Rapid Start	89710	GEM240HRS120DIY	2 - F40T12 F40T12 120V Magnetic Ballast (420LTCP)	94	
F40T12/WMP	1	120	Magnetic - Rapid Start	89714	GEM140HRS120DIY	1 - F40T12 F40T12 120V Magnetic Ballast (412LSLHTCP)	93	
	3	120-277	Electronic - High Efficiency Multivolt Instant Start	71423	GE432MAX-N+	4 or 3 - F32T8 120 to 277 "N+" 1.0 BF UltraMax®	44	
	2	120-277	Electronic - High Efficiency Multivolt Instant Start	71422	GE332MAX-N+	3 or 2 - F32T8 120 to 277 "N+" 1.0 BF UltraMax®	42	
	1	120-277	Electronic - High Efficiency Multivolt Instant Start	49766	GE159MAX-N/ULTRA	1 - F96T8 120 to 277 "N".87 BF UltraMax®	45	
	1	120-277	Electronic - High Efficiency Multivolt Instant Start	49775	GE232MAX-H/ULTRA	2 or 1 - F32T8 120 to 277 "H" 1.15 BF UltraMax®	39	
	1	120-277	Electronic - High Efficiency Multivolt Instant Start	71421	GE232MAX-N+	2 or 1 - F32T8 120 to 277 "N+" 1.0 BF UltraMax®	40	
	1	120	Electronic - Standard Instant Start Electronic - High Efficiency	23671	GE-232-120-N	2 or 1 - F32T8 120V "N".87 BF ProLine®	54	
	3	120-277	Electronic - High Efficiency Multivolt Instant Start	71723	GE432MAX-H/ULTRA	4 or 3 - F32T8 120 to 277 "H" 1.15 BF UltraMax®	43	
	3	120-277	Electronic - Multivolt Instant Start	30219	GE-432-MV-H	4 or 3 - F32T8 120 to 277 "H" 1.15 BF Multivolt ProLine®	49	
	3	120-277	Electronic - Multivolt Instant Start	30262	GE-432-MV-L	4 or 3 - F32T8 120 to 277 "L".77 BF Multivolt ProLine®	50	
F40T8	3	120-277	Electronic - Multivolt Instant Start	30193	GE-432-MV-N	4 or 3 - F32T8 120 to 277 "N".87 BF Multivolt ProLine®	50	
	3	120-277	Electronic - Multivolt Instant Start	30193	GE-432-MV-N	4 or 3 - F32T8 120 to 277 "N".87 BF Multivolt ProLine®	50	
	3	277	Electronic - Standard Instant Start	23676	GE-432-277-N	4 or 3 - F32T8 277V "N".87 BF ProLine®	56	
	3	120	Electronic - Standard Instant Start	23675	GE-432-120-N	4 or 3 - F32T8 120V "N".87 BF ProLine®	56	
	2	120-277	Electronic - High Efficiency Multivolt Instant Start	49767	GE259MAX-N/ULTRA	2 or 1 - F96T8 120 to 277 "N".87 BF UltraMax®	45	
	2	120-277	Electronic - Program / Rapid Start Electronic - High Efficiency	30176	GE-286-HO-MV-N	2 or 1 - F96T8HO IS 120 to 277 "N".87 BF	52	
	2	120-277	Electronic - High Efficiency Multivolt Instant Start	71714	GE332MAX-H/ULTRA	3 or 2 - F32T8 120 to 277 "H" 1.15 BF UltraMax®	41	
	2	120-277	Electronic - Multivolt Instant Start	30199	GE-332-MV-H	3 or 2 - F32T8 120 to 277 "H" 1.15 BF Multivolt ProLine®	48	
	2	120-277	Electronic - Multivolt Instant Start	30255	GE-332-MV-L	3 or 2 - F32T8 120 to 277 "L".77 BF Multivolt ProLine®	48	
	2	120-277	Electronic - Multivolt Instant Start	30192	GE-332-MV-N	3 or 2 - F32T8 120 to 277 "N".87 BF Multivolt ProLine®	49	
F48T12	2	277	Electronic - Standard Instant Start	23674	GE-332-277-N	3 or 2 - F32T8 277V "N".87 BF ProLine®	55	
	2	120	Electronic - Standard Instant Start	23673	GE-332-120-N	3 or 2 - F32T8 120V "N".87 BF ProLine®	55	
	1	120-277	Electronic - Multivolt Instant Start	30198	GE-232-MV-H	2 or 1 - F32T8 120 to 277 "H" 1.15 BF Multivolt ProLine®	46	
	1	120-277	Electronic - Multivolt Instant Start	30198	GE-232-MV-H	2 or 1 - F32T8 120 to 277 "H" 1.15 BF Multivolt ProLine®	46	
	1	120-277	Electronic - Multivolt Instant Start	72273	GE-232-MV-L	2 or 1 - F32T8 120 to 277 "L".77 BF Multivolt ProLine®	47	
	1	120-277	Electronic - Multivolt Instant Start	72275	GE-232-MV-N	2 or 1 - F32T8 120 to 277 "N".87 BF Multivolt ProLine®	47	
	1	120-277	Electronic - Multivolt Instant Start	72275	GE-232-MV-N	2 or 1 - F32T8 120 to 277 "N".87 BF Multivolt ProLine®	47	
	1	120-277	Electronic - High Efficiency Multivolt Instant Start	49767	GE259MAX-N/ULTRA	2 or 1 - F96T8 120 to 277 "N".87 BF UltraMax®	45	
	1	120-277	Electronic - Program / Rapid Start	30176	GE-286-HO-MV-N	2 or 1 - F96T8HO IS 120 to 277 "N".87 BF	52	
	1	277	Electronic - Standard Instant Start	23672	GE-232-277-N	2 or 1 - F32T8 277V "N".87 BF ProLine®	54	
F48T12/25W	2	120-277	Electronic - Multivolt Instant Start	24108	GE-260-IS-MV-N	2 or 1 - F96T12 Instant Start 120 to 277	87	
	2	277	Magnetic - Standard Instant Start	86379	GEM296IS277IP	2 - F96T12 IS 277V Magnetic Ballast (827SLHTCP)	98	
	2	120	Magnetic - Standard Instant Start	86360	GEM296IS120IP	2 - F96T12 IS 120V Magnetic Ballast (806SLHTCP)	98	
	1	120-277	Electronic - Multivolt Instant Start	24108	GE-260-IS-MV-N	2 or 1 - F96T12 Instant Start 120 to 277	87	
	1	120	Electronic - Program / Rapid Start	72110	GE140RS120-DIY	1 F40 or F34T12 Rapid Start Electronic 120V "N" BF DIY Pack	86	
	1	120	Magnetic - Rapid Start	89709	GEM140RS120DIY	1 - F40T12 F30T12 F48/25W 120V Magnetic Ballast (413CTCP)	93	
	2	120-277	Electronic - Program / Rapid Start	72109	GE296HO-MV-N	2 or 1 - F96T12 HO RS 120 to 277 Multivolt ProLine®	89	
	2	120-277	Electronic - Program / Rapid Start	72109	GE296HO-MV-N	2 or 1 - F96T12 HO RS 120 to 277 Multivolt ProLine®	89	
	2	120-277	Electronic - Program / Rapid Start	30176	GE-286-HO-MV-N	2 or 1 - F96T8HO IS 120 to 277 "N".87 BF	52	
	1	120-277	Electronic - Program / Rapid Start	30176	GE-286-HO-MV-N	2 or 1 - F96T8HO IS 120 to 277 "N".87 BF	52	

Lamp Type	# of Lamps	Voltage	Fluorescent Ballast Type	Ballast Product Code	Ballast Description	Fluorescent Ballast Long Description	Prod Code Page No
Linear Fluorescent Lamps							
F4T5	1	277	Magnetic - Preheat	87634	GEM1CF579PH277	1 - CFT579Q9W/G23 Preheat 277 (4205F2P)	128
	4	120-277	Electronic - Program / Rapid Start	99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81
	4	120-277	Electronic - Program / Rapid Start	29726	GE454MVPSN1	4,3,2 or 1 - F54T5HO 120-277V UltraStart® PRS Stick Can	81
	3	120-277	Electronic - Program / Rapid Start	99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81
	3	120-277	Electronic - Program / Rapid Start	29726	GE454MVPSN1	4,3,2 or 1 - F54T5HO 120-277V UltraStart® PRS Stick Can	81
	2	120-277	Electronic - Program / Rapid Start	47542	B254PUNV-DGE1C	2 - F54T5HO PRS UNV 50/60 Hz	80
	2	120-277	Electronic - Program / Rapid Start	99651	GE254MVPS90-F	2 or 1 - F54T5HO 120 to 277 UltraStart® PRS High Temp F Can	80
	2	120-277	Electronic - Program / Rapid Start	99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81
	2	120-277	Electronic - Program / Rapid Start	29726	GE454MVPSN1	4,3,2 or 1 - F54T5HO 120-277V UltraStart® PRS Stick Can	81
	1	120-277	Electronic - Program / Rapid Start	47542	B254PUNV-DGE1C	2 - F54T5HO PRS UNV 50/60 Hz	80
F54T5/HO	1	120-277	Electronic - Program / Rapid Start	99651	GE254MVPS90-F	2 or 1 - F54T5HO 120 to 277 UltraStart® PRS High Temp F Can	80
	1	120-277	Electronic - Program / Rapid Start	99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81
	1	120-277	Electronic - Program / Rapid Start	99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81
	1	120-277	Electronic - Program / Rapid Start	29726	GE454MVPSN1	4,3,2 or 1 - F54T5HO 120-277V UltraStart® PRS Stick Can	81
	1	120-277	Electronic - Program / Rapid Start	29726	GE454MVPSN1	4,3,2 or 1 - F54T5HO 120-277V UltraStart® PRS Stick Can	81
	1	120-277	Electronic - Program / Rapid Start	99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81
	1	120-277	Electronic - Program / Rapid Start	99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81
	1	120-277	Electronic - Program / Rapid Start	99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81
	1	120-277	Electronic - Program / Rapid Start	99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81
	1	120-277	Electronic - Program / Rapid Start	99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81
F54T5/WM	2	120-277	Electronic - Program / Rapid Start	99651	GE254MVPS90-F	2 or 1 - F54T5HO 120 to 277 UltraStart® PRS High Temp F Can	80
	2	120-277	Electronic - Program / Rapid Start	99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81
	1	120-277	Electronic - Program / Rapid Start	99651	GE254MVPS90-F	2 or 1 - F54T5HO 120 to 277 UltraStart® PRS High Temp F Can	80
	1	120-277	Electronic - Program / Rapid Start	99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81
	4	120-277	Electronic - Program / Rapid Start	99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81
	3	120-277	Electronic - Program / Rapid Start	99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81
	2	120-277	Electronic - Program / Rapid Start	99651	GE254MVPS90-F	2 or 1 - F54T5HO 120 to 277 UltraStart® PRS High Temp F Can	80
	2	120-277	Electronic - Program / Rapid Start	99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81
	1	120-277	Electronic - Program / Rapid Start	99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81
	1	120-277	Electronic - Program / Rapid Start	99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81
F58T8	2	120-277	Electronic - Program / Rapid Start	99651	GE254MVPS90-F	2 or 1 - F54T5HO 120 to 277 UltraStart® PRS High Temp F Can	80
	2	120-277	Electronic - Program / Rapid Start	30176	GE-286-HO-MV-N	2 or 1 - F96T8HO IS 120 to 277 "N".87 BF	52
	2	120-277	Electronic - Program / Rapid Start	99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81
	1	120-277	Electronic - Program / Rapid Start	99651	GE254MVPS90-F	2 or 1 - F54T5HO 120 to 277 UltraStart® PRS High Temp F Can	80
	1	120-277	Electronic - Program / Rapid Start	30176	GE-286-HO-MV-N	2 or 1 - F96T8HO IS 120 to 277 "N".87 BF	52
	1	120-277	Electronic - Program / Rapid Start	99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81
	1	120-277	Electronic - Program / Rapid Start	99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81
	1	120-277	Electronic - Program / Rapid Start	99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81
	1	120-277	Electronic - Program / Rapid Start	99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81
	1	120-277	Electronic - Program / Rapid Start	99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81
F58T8 (cont)	1	120-277	Electronic - Program / Rapid Start	99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81
	2	120-277	Electronic - Multivolt Instant Start	2			

Quick reference lamp to ballast selection guide (cont.)

Lamp Type	# of Lamps	Voltage	Fluorescent Ballast Type	Ballast Product Code	Ballast Description	Fluorescent Ballast Long Description	Prod Code Page No
Linear Fluorescent Lamps							
F96T12/HO/WM	2	120-277	Electronic - Program / Rapid Start	72109	GE296HO-MV-N	2 or 1 - F96T12 HO RS 120 to 277 Multivolt ProLine®	89
	2	120-277	Electronic - Program / Rapid Start	72109	GE296HO-MV-N	2 or 1 - F96T12 HO RS 120 to 277 Multivolt ProLine®	89
F96T12/WM	2	120-277	Electronic - Multivolt Instant Start	24108	GE-260-IS-MV-N	2 or 1 - F96T12 Instant Start 120 to 277	87
	2	277	Magnetic - Standard Instant Start	86379	GEM296IS277IP	2 - F96T12 IS 277V Magnetic Ballast (827SLHTCP)	98
	2	120	Magnetic - Standard Instant Start	86360	GEM296IS120IP	2 - F96T12 IS 120V Magnetic Ballast (806SLHTCP)	98
	1	120-277	Electronic - Multivolt Instant Start	24108	GE-260-IS-MV-N	2 or 1 - F96T12 Instant Start 120 to 277	87
	1	277	Magnetic - Standard Instant Start	86381	GEM196IS277IP	1 - F96T12 IS 277 Magnetic Ballast (828BRTCP)	97
F96T12/WMP	2	120-277	Electronic - Multivolt Instant Start	24108	GE-260-IS-MV-N	2 or 1 - F96T12 Instant Start 120 to 277	87
	1	120-277	Electronic - High Efficiency Multivolt Instant Start	49767	GE259MAX-N/ULTRA	2 or 1 - F96T8 120 to 277 "N".87 BF UltraMax®	45
F96T8	2	120-277	Electronic - Multivolt Instant Start	30194	GE-259-MV-N	2 or 1 - F96T8 120 to 277 "N".87 BF Multivolt ProLine®	51
	2	120-277	Electronic - Program / Rapid Start	30176	GE-286-HO-MV-N	2 or 1 - F96T8HO IS 120 to 277 "N".87 BF	52
	2	277	Electronic - Standard Instant Start	23678	GE-259-277-N	2 or 1 - F96T8 277v "N".87 BF ProLine®	57
	2	120	Electronic - Standard Instant Start	23677	GE-259-120-N	2 or 1 - F96T8 120v Normal Light .87 BF ProLine®	57
	1	120-277	Electronic - High Efficiency Multivolt Instant Start	49766	GE159MAX-N/ULTRA	1 - F96T8 120 to 277 "N".87 BF UltraMax®	45
	1	120-277	Electronic - Multivolt Instant Start	30195	GE-159-MV-N	1 - F96T8 120 to 277 "N".87 BF Multivolt ProLine®	51
	1	120-277	Electronic - High Efficiency Multivolt Instant Start	49767	GE259MAX-N/ULTRA	2 or 1 - F96T8 120 to 277 "N".87 BF UltraMax®	45
	1	120-277	Electronic - Multivolt Instant Start	30194	GE-259-MV-N	2 or 1 - F96T8 120 to 277 "N".87 BF Multivolt ProLine®	51
	1	120-277	Electronic - Program / Rapid Start	30176	GE-286-HO-MV-N	2 or 1 - F96T8HO IS 120 to 277 "N".87 BF	52
	1	277	Electronic - Standard Instant Start	23678	GE-259-277-N	2 or 1 - F96T8 277v "N".87 BF ProLine®	57
F96T8/HO	2	120-277	Electronic - Program / Rapid Start	30176	GE-286-HO-MV-N	2 or 1 - F96T8HO IS 120 to 277 "N".87 BF	52
	1	120-277	Electronic - Program / Rapid Start	30176	GE-286-HO-MV-N	2 or 1 - F96T8HO IS 120 to 277 "N".87 BF	52
F96T8/HO/WM	2	277	Electronic - Program / Rapid Start	80163	B295SR277HP	2 - F96T12HOES RS 277	88
	2	277	Magnetic - Rapid Start	86171	GEM296HORS277IP	2 - F96T12HO RS 277V Magnetic Ballast (487SLHTCP)	99
	2	120	Electronic - Program / Rapid Start	80162	B295SR120HP	2 - F96T12HOES RS 120	88
	2	120	Magnetic - Rapid Start	86164	GEM296HORS120IP	2 - F96T12HO F72T12HO RS 120V Magnetic Ballast (480SLHTCP)	99
F96T8/WM	2	120-277	Electronic - High Efficiency Multivolt Instant Start	49767	GE259MAX-N/ULTRA	2 or 1 - F96T8 120 to 277 "N".87 BF UltraMax®	45
	2	120-277	Electronic - Multivolt Instant Start	30194	GE-259-MV-N	2 or 1 - F96T8 120 to 277 "N".87 BF Multivolt ProLine®	51
	2	120-277	Electronic - Program / Rapid Start	30176	GE-286-HO-MV-N	2 or 1 - F96T8HO IS 120 to 277 "N".87 BF	52
	2	277	Electronic - Standard Instant Start	23678	GE-259-277-N	2 or 1 - F96T8 277v "N".87 BF ProLine®	57
	2	120	Electronic - Standard Instant Start	23677	GE-259-120-N	2 or 1 - F96T8 120v Normal Light .87 BF ProLine®	57
	1	120-277	Electronic - High Efficiency Multivolt Instant Start	49766	GE159MAX-N/ULTRA	1 - F96T8 120 to 277 "N".87 BF UltraMax®	45
	1	120-277	Electronic - Multivolt Instant Start	30195	GE-159-MV-N	1 - F96T8 120 to 277 "N".87 BF Multivolt ProLine®	51
	1	120-277	Electronic - High Efficiency Multivolt Instant Start	49767	GE259MAX-N/ULTRA	2 or 1 - F96T8 120 to 277 "N".87 BF UltraMax®	45
	1	120-277	Electronic - Multivolt Instant Start	30194	GE-259-MV-N	2 or 1 - F96T8 120 to 277 "N".87 BF Multivolt ProLine®	51
	1	120-277	Electronic - Program / Rapid Start	30176	GE-286-HO-MV-N	2 or 1 - F96T8HO IS 120 to 277 "N".87 BF	52
F96T8/WMP	2	277	Electronic - Standard Instant Start	23678	GE-259-277-N	2 or 1 - F96T8 277v "N".87 BF ProLine®	57
	2	120	Electronic - Standard Instant Start	23677	GE-259-120-N	2 or 1 - F96T8 120v Normal Light .87 BF ProLine®	57
	1	120-277	Electronic - High Efficiency Multivolt Instant Start	49766	GE159MAX-N/ULTRA	1 - F96T8 120 to 277 "N".87 BF UltraMax®	45
	1	120-277	Electronic - Multivolt Instant Start	30195	GE-159-MV-N	1 - F96T8 120 to 277 "N".87 BF Multivolt ProLine®	51
	1	120-277	Electronic - High Efficiency Multivolt Instant Start	49767	GE259MAX-N/ULTRA	2 or 1 - F96T8 120 to 277 "N".87 BF UltraMax®	45
	2	120-277	Electronic - Multivolt Instant Start	30194	GE-259-MV-N	2 or 1 - F96T8 120 to 277 "N".87 BF Multivolt ProLine®	51
	2	120-277	Electronic - Program / Rapid Start	30176	GE-286-HO-MV-N	2 or 1 - F96T8HO IS 120 to 277 "N".87 BF	52
	2	277	Electronic - Standard Instant Start	23678	GE-259-277-N	2 or 1 - F96T8 277v "N".87 BF ProLine®	57
	2	120	Electronic - Standard Instant Start	23677	GE-259-120-N	2 or 1 - F96T8 120v Normal Light .87 BF ProLine®	57
	1	120-277	Electronic - High Efficiency Multivolt Instant Start	49766	GE159MAX-N/ULTRA	1 - F96T8 120 to 277 "N".87 BF UltraMax®	45
F96T8/GR10q	1	120-277	Electronic - Multivolt Instant Start	30195	GE-159-MV-N	1 - F96T8 120 to 277 "N".87 BF Multivolt ProLine®	51
	1	120-277	Electronic - High Efficiency Multivolt Instant Start	49767	GE259MAX-N/ULTRA	2 or 1 - F96T8 120 to 277 "N".87 BF UltraMax®	45
	1	120-277	Electronic - Multivolt Instant Start	30194	GE-259-MV-N	2 or 1 - F96T8 120 to 277 "N".87 BF Multivolt ProLine®	51
	1	120-277	Electronic - Program / Rapid Start	30176	GE-286-HO-MV-N	2 or 1 - F96T8HO IS 120 to 277 "N".87 BF	52
	1	277	Electronic - Standard Instant Start	23678	GE-259-277-N	2 or 1 - F96T8 277v "N".87 BF ProLine®	57
	1	120	Electronic - Standard Instant Start	23677	GE-259-120-N	2 or 1 - F96T8 120v Normal Light .87 BF ProLine®	57

Lamp Type	# of Lamps	Voltage	Fluorescent Ballast Type	Ballast Product Code	Ballast Description	Fluorescent Ballast Long Description	Prod Code Page No	
Circleline Fluorescent Lamps								
FC12T5HO	4	120-277	Electronic - Program / Rapid Start	99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81	
	3	120-277	Electronic - Program / Rapid Start	99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81	
	2	120-277	Electronic - Program / Rapid Start	47542	B254PUNV-DGE1C	2 - F54T5HO PRS UNV 50/60 Hz	80	
	2	120-277	Electronic - Program / Rapid Start	99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81	
	2	120-277	Electronic - Program / Rapid Start	99651	GE254MVPS90-F	2 or 1 - F54T5HO 120 to 277 UltraStart® PRS High Temp F Can	80	
	1	120-277	Electronic - Program / Rapid Start	47542	B254PUNV-DGE1C	2 - F54T5HO PRS UNV 50/60 Hz	80	
	1	120-277	Electronic - Program / Rapid Start	99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81	
	1	120-277	Electronic - Program / Rapid Start	99651	GE254MVPS90-F	2 or 1 - F54T5HO 120 to 277 UltraStart® PRS High Temp F Can	80	
	FC12T9	2	120	Electronic - Rapid Start	89717	GEM1FC12T9RS120	2 FC12T9 RS 120V Magnetic Ballast (449LRWSTCP)	92
		2	120	Electronic - Program / Rapid Start	97498	GE240RS120	5 - F40 or F34T12 Rapid Start 120V "N" BF ProLine® T12	85
1		120	Electronic - Program / Rapid Start	97498	GE240RS120	4 - F40 or F34T12 Rapid Start 120V "N" BF ProLine® T12	85	
1		120	Magnetic - Rapid Start	89720	GEM1FC16T9RS120	2 - FC12T9 FC16T9 FC8T9 FC12T9 120V Magnetic (726VLHWSTCP)	91	
FC16T9	4	120	Electronic - Program / Rapid Start	97499	GE240RS120	3 - F40 or F34T12 Rapid Start 120V "N" BF ProLine® T12	85	
	1	120	Magnetic - Rapid Start	89720	GEM1FC16T9RS120	2 - FC12T9 FC16T9 FC8T9 FC12T9 120V Magnetic (726VLHWSTCP)	91	
	1	120	Electronic - Program / Rapid Start	89720	GEM1FC16T9RS120	2 - FC12T9 FC16T9 FC8T9 FC12T9 120V Magnetic (726VLHWSTCP)	91	
FC6T9	1	120-277	Electronic - Program / Rapid Start	71444	GEC226-MVPS-XX	2 - CFQ26W, FT24 or 1-42W, CFTR32 Bottom Exit 120-277V ProLine® PS	124	
	1	120-277	Electronic - Program / Rapid Start	71445	GEC226-MVPS-3W	2 - CFQ26W, FT24 or 1-42W, CFTR32 3 Way Mounting Kit 120-277V ProLine® PS	124	
FC8T9	1	120	Magnetic - Rapid Start	86227	GEM1FC8T9RS120IP	1 - FC8T9 RS 120V Magnetic Ballast (547RSWSTCP)	91	
	1	120	Electronic - Program / Rapid Start	89717	GEM1FC12T9RS120	2 FC12T9 RS 120V Magnetic Ballast (449LRWSTCP)	92	
FC8T9	1	120	Magnetic - Rapid Start	86227	GEM1FC8T9RS120IP	1 - FC8T9 RS 120V Magnetic Ballast (547RSWSTCP)	91	
	1	120	Electronic - Program / Rapid Start	86227	GEM1FC8T9RS120IP	1 - FC8T9 RS 120V Magnetic Ballast (547RSWSTCP)	91	
Compact Fluorescent Lamps								
CFM36W/2G10	2	120-277	Electronic - Program / Rapid Start	47506	C24UNVBES-IP	2-42 / 36 / 32 / 26 / 24 watt CFL UNV Bottom Exit w/Studs	124	
	1	120-277	Electronic - Program / Rapid Start	47506	C24UNVBES-IP	2-42 / 36 / 32 / 26 / 24 watt CFL UNV Bottom Exit w/Studs	124	
CFM42W	2	120-277	Electronic - Program / Rapid Start	47506	C24UNVBES-IP	2-42 / 36 / 32 / 26 / 24 watt CFL UNV Bottom Exit w/Studs	124	
	1	120-277	Electronic - Program / Rapid Start	47506	C24UNVBES-IP	2-42 / 36 / 32 / 26 / 24 watt CFL UNV Bottom Exit w/Studs	124	
CFM57W	1	120-277	Electronic - Program / Rapid Start	47506	C24UNVBES-IP	2-42 / 36 / 32 / 26 / 24 watt CFL UNV Bottom Exit w/Studs	124	
	1	120-277	Electronic - Program / Rapid Start	47506	C24UNVBES-IP	2-42 / 36 / 32 / 26 / 24 watt CFL UNV Bottom Exit w/Studs	124	
CFQ13W/2P	2	277	Magnetic - Preheat	87655	GEM2CF13PH277	2 - CFT/Q13W/GX23 Preheat 277 (4214PBES)	129	
	1	120	Magnetic - Preheat	87533	GEM1CF13PH120	1 - CFT/Q13W/GX23 Preheat 120 (4111H2P)	128	
CFQ13W/G24q	2	120-277	Electronic - Program / Rapid Start	71430	GEC213-MVPS-3W	2 or 1 - CFQ13W/G24q 120-277V ProLine® PS 3-Way Kit	123	
	2	120-277	Electronic - Program / Rapid Start	71429	GEC213-MVPS-XX	2 or 1 - CFQ13W/G24q Bottom Exit 120-277V ProLine® PS	123	
	1	120-277	Electronic - Program / Rapid Start	71430	GEC213-MVPS-3W	2 or 1 - CFQ13W/G24q 120-277V ProLine® PS 3-Way Kit	123	
	1	120-277	Electronic - Program / Rapid Start	71429	GEC213-MVPS-XX	2 or 1 - CFQ13W/G24q Bottom Exit 120-277V ProLine® PS	123	
CFQ18W/G24q	2	120-277	Electronic - Program / Rapid Start	71434	GEC218-MVPS-3W	2 or 1 - CFQ18W/G24q 120-277V ProLine® PS 3 Way Kit	123	
	2	120-277	Electronic - Program / Rapid Start	71433	GEC218-MVPS-XX	2 or 1 - CFQ18W/G24q Bottom Exit 120-277 ProLine® PS	123	
	1	120-277	Electronic - Program / Rapid Start	71434	GEC218-MVPS-3W	2 or 1 - CFQ18W/G24q 120-277V ProLine® PS 3 Way Kit	123	
	1	120-277	Electronic - Program / Rapid Start	71433	GEC218-MVPS-XX	2 or 1 - CFQ18W/G24q Bottom Exit 120-277 ProLine® PS	123	
CFQ26W/2P	2	277	Magnetic - Preheat	87700	GEM2CF24PH277	2 - CFQ26W/G24d Preheat 277 (4226PBES)	129	
	2	120-277	Electronic - Program / Rapid Start	47506	C24UNVBES-IP	2-42 / 36 / 32 / 26 / 24 watt CFL UNV Bottom Exit w/Studs	124	
CFQ26W/G24q	2	120-277	Electronic - Program / Rapid Start	71445	GEC226-MVPS-3W	2 - CFQ26W, FT24 or 1-42W, CFTR32 3 Way Mounting Kit 120-277V ProLine® PS	124	
	2	120-277	Electronic - Program / Rapid Start	71444	GEC226-MVPS-XX	2 - CFQ26W, FT24 or 1-42W, CFTR32 Bottom Exit 120-277V ProLine® PS	124	
	1	120-277	Electronic - Program / Rapid Start	71434	GEC218-MVPS-3W	2 or 1 - CFQ18W/G24q 120-277V ProLine® PS 3 Way Kit	123	
	1	120-277	Electronic - Program / Rapid Start	71434	GEC218-MVPS-3W	2 or 1 - CFQ18W/G24q 120-277V ProLine® PS 3 Way Kit	123	
	1	120-277	Electronic - Program / Rapid Start	71433	GEC218-MVPS-XX	2 or 1 - CFQ18W/G24q Bottom Exit 120-277 ProLine® PS	123	
	1	120-277	Electronic - Program / Rapid Start	71433	GEC218-MVPS-XX	2 or 1 - CFQ18W/G24q Bottom Exit 120-277 ProLine® PS	123	
	1	120-277	Electronic - Program / Rapid Start	71445	GEC226-MVPS-3W	2 - CFQ26W, FT24 or 1-42W, CFTR32 3 Way Mounting Kit 120-277V ProLine® PS	124	
	1	120-277	Electronic - Program / Rapid Start	71444	GEC226-MVPS-XX	2 - CFQ26W, FT24 or 1-42W, CFTR32 Bottom Exit 120-277V ProLine® PS	124	
	2	120-277	Electronic - Program / Rapid Start	71430	GEC213-MVPS-3W	2 or 1 - CFQ13W/G24q 120-277V ProLine® PS 3-Way Kit	123	
	2	120-277	Electronic - Program / Rapid Start	71429	GEC213-MVPS-XX	2 or 1 - CFQ13W/G24q Bottom Exit 120-277V ProLine® PS	123	
CFS16W/GR10q	2	120-277	Electronic - Program / Rapid Start	71434	GEC218-MVPS-3W	2 or 1 - CFQ18W/G24q 120-277V ProLine® PS 3 Way Kit	123	
	1	120-277	Electronic - Program / Rapid Start	71430	GEC213-MVPS-3W	2 or 1 - CFQ13W/G24q 120-277V ProLine® PS 3-Way Kit	123	
	1	120-277	Electronic - Program / Rapid Start	71430	GEC213-MVPS-3W	2 or 1 - CFQ13W/G24q 120-277V ProLine® PS 3-Way Kit	123	
	1	120-277	Electronic - Program / Rapid Start	71429	GEC213-MVPS-XX	2 or 1 - CFQ13W/G24q Bottom Exit 120-277V ProLine® PS	123	
CFS21W/GR10q	1	120-277	Electronic - Program / Rapid Start	71429	GEC213-MVPS-XX	2 or 1 - CFQ13W/G24q Bottom Exit 120-277V ProLine® PS	123	
	1	120-277	Electronic - Program / Rapid Start	71429	GEC213-MVPS-XX	2 or 1 - CFQ13W/G24q Bottom Exit 120-277V ProLine® PS	123	
	2	120-277	Electronic - Program / Rapid Start	71434	GEC218-MVPS-3W	2 or 1 - CFQ18W/G24q 120-277V ProLine® PS 3 Way Kit	123	
	2	120-277	Electronic - Program / Rapid Start	71433	GEC218-MVPS-XX			

Quick reference lamp to ballast selection guide (cont.)

Lamp Type	# of Lamps	Voltage	Fluorescent Ballast Type	Ballast Product Code	Ballast Description	Fluorescent Ballast Long Description	Prod Code Page No
Compact Fluorescent Lamps							
CFT5W/2P	1	277	Magnetic - Preheat	87634	GEM1CF579PH277	1 - CFT579Q9W/G23 Preheat 277 (4205F2P)	128
CFT7W/2P	1	277	Magnetic - Preheat	87634	GEM1CF579PH277	1 - CFT579Q9W/G23 Preheat 277 (4205F2P)	128
CFT9W/2P	1	277	Magnetic - Preheat	87634	GEM1CF579PH277	1 - CFT579Q9W/G23 Preheat 277 (4205F2P)	128
CFTR13W/GX24q	2	120-277	Electronic - Program / Rapid Start	71430	GEC213-MVPS-3W	2 or 1 - CFQ13W/G24q Bottom Exit 120-277V ProLine® PS 3-Way Kit	123
	2	120-277	Electronic - Program / Rapid Start	71429	GEC213-MVPS-XX	2 or 1 - CFQ13W/G24q Bottom Exit 120-277V ProLine® PS	123
CFTR18W/GX24q	1	120-277	Electronic - Program / Rapid Start	71430	GEC213-MVPS-3W	2 or 1 - CFQ13W/G24q Bottom Exit 120-277V ProLine® PS 3-Way Kit	123
	1	120-277	Electronic - Program / Rapid Start	71429	GEC213-MVPS-XX	2 or 1 - CFQ13W/G24q Bottom Exit 120-277V ProLine® PS	123
CFTR18W/GX24q	2	120-277	Electronic - Program / Rapid Start	71434	GEC218-MVPS-3W	2 or 1 - CFQ18W/G24q Bottom Exit 120-277V ProLine® PS 3 Way Kit	123
	2	120-277	Electronic - Program / Rapid Start	71433	GEC218-MVPS-XX	2 or 1 - CFQ18W/G24q Bottom Exit 120-277V ProLine® PS	123
CFTR18W/GX24q	1	120-277	Electronic - Program / Rapid Start	71430	GEC213-MVPS-3W	2 or 1 - CFQ13W/G24q Bottom Exit 120-277V ProLine® PS 3-Way Kit	123
	1	120-277	Electronic - Program / Rapid Start	71429	GEC213-MVPS-XX	2 or 1 - CFQ13W/G24q Bottom Exit 120-277V ProLine® PS	123
CFTR18W/GX24q	1	120-277	Electronic - Program / Rapid Start	71434	GEC218-MVPS-3W	2 or 1 - CFQ18W/G24q Bottom Exit 120-277V ProLine® PS 3 Way Kit	123
	1	120-277	Electronic - Program / Rapid Start	71433	GEC218-MVPS-XX	2 or 1 - CFQ18W/G24q Bottom Exit 120-277V ProLine® PS	123
CFTR26W/2P	2	277	Magnetic - Preheat	87700	GEM2CF24PH277	2 - CFQ26W/G24d Preheat 277 (4226PBES)	129
	2	120-277	Electronic - Program / Rapid Start	47506	C24UNVBES-IP	2- 42 / 36 / 32 / 26 / 24 watt CFL UNV Bottom Exit w/Studs	124
CFTR26W/GX24q	2	120-277	Electronic - Program / Rapid Start	71445	GEC226-MVPS-3W	2 - CFQ26W, FT24 or 1-42W, CFTR32 3 Way Mounting Kit 120-277V ProLine® PS	124
	2	120-277	Electronic - Program / Rapid Start	71444	GEC226-MVPS-XX	2 - CFQ26W, FT24 or 1-42W, CFTR32 Bottom Exit 120-277V ProLine® PS	124
CFTR26W/GX24q	1	120-277	Electronic - Program / Rapid Start	71445	GEC226-MVPS-3W	2 - CFQ26W, FT24 or 1-42W, CFTR32 3 Way Mounting Kit 120-277V ProLine® PS	124
	1	120-277	Electronic - Program / Rapid Start	71444	GEC226-MVPS-XX	2 - CFQ26W, FT24 or 1-42W, CFTR32 Bottom Exit 120-277V ProLine® PS	124
CFTR32W/GX24q	2	120-277	Electronic - Program / Rapid Start	47506	C24UNVBES-IP	2- 42 / 36 / 32 / 26 / 24 watt CFL UNV Bottom Exit w/Studs	124
	1	120-277	Electronic - Program / Rapid Start	71445	GEC226-MVPS-3W	2 - CFQ26W, FT24 or 1-42W, CFTR32 3 Way Mounting Kit 120-277V ProLine® PS	124
CFTR32W/GX24q	1	120-277	Electronic - Program / Rapid Start	71444	GEC226-MVPS-XX	2 - CFQ26W, FT24 or 1-42W, CFTR32 Bottom Exit 120-277V ProLine® PS	124
	1	120-277	Electronic - Program / Rapid Start	71445	GEC226-MVPS-3W	2 - CFQ26W, FT24 or 1-42W, CFTR32 3 Way Mounting Kit 120-277V ProLine® PS	124
CFTR42W/GX24q	1	120-277	Electronic - Program / Rapid Start	71445	GEC226-MVPS-3W	2 - CFQ26W, FT24 or 1-42W, CFTR32 3 Way Mounting Kit 120-277V ProLine® PS	124
	1	120-277	Electronic - Program / Rapid Start	71444	GEC226-MVPS-XX	2 - CFQ26W, FT24 or 1-42W, CFTR32 Bottom Exit 120-277V ProLine® PS	124
FC12T5	2	120-277	Electronic - Program / Rapid Start	47506	C24UNVBES-IP	2- 42 / 36 / 32 / 26 / 24 watt CFL UNV Bottom Exit w/Studs	124
	1	120-277	Electronic - Program / Rapid Start	47506	C24UNVBES-IP	2- 42 / 36 / 32 / 26 / 24 watt CFL UNV Bottom Exit w/Studs	124
FC9T5	2	120-277	Electronic - Program / Rapid Start	47506	C24UNVBES-IP	2- 42 / 36 / 32 / 26 / 24 watt CFL UNV Bottom Exit w/Studs	124
FC9T5 & FC12T5	1 & 1	120-277	Electronic - Program / Rapid Start	47506	C24UNVBES-IP	2- 42 / 36 / 32 / 26 / 24 watt CFL UNV Bottom Exit w/Studs	
FT24W/2G10	2	120-277	Electronic - Program / Rapid Start	47534	B224PUNV-COG1C	2 - F24T5HO PRS UNV 50/60 Hz	123
FT24W/2G10	1	120-277	Electronic - Program / Rapid Start	47534	B224PUNV-COG1C	2 - F24T5HO PRS UNV 50/60 Hz	123
	2	120-277	Electronic - Program / Rapid Start	47506	C24UNVBES-IP	2- 42 / 36 / 32 / 26 / 24 watt CFL UNV Bottom Exit w/Studs	124
FT24W/2G11	2	120-277	Electronic - Program / Rapid Start	71445	GEC226-MVPS-3W	2 - CFQ26W, FT24 or 1-42W, CFTR32 3 Way Mounting Kit 120-277V ProLine® PS	124
	2	120-277	Electronic - Program / Rapid Start	71444	GEC226-MVPS-XX	2 - CFQ26W, FT24 or 1-42W, CFTR32 Bottom Exit 120-277V ProLine® PS	124
FT24W/4P	2	120-277	Electronic - Program / Rapid Start	47534	B224PUNV-COG1C	2 - F24T5HO PRS UNV 50/60 Hz	79
	1	120-277	Electronic - Program / Rapid Start	47534	B224PUNV-COG1C	2 - F24T5HO PRS UNV 50/60 Hz	79
FT24W/4P	4	120-277	Electronic - Program / Rapid Start	99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81
	3	120-277	Electronic - Program / Rapid Start	99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81
FT24W/4P	2	120-277	Electronic - Program / Rapid Start	47540	B239PUNV-DOG1C	2 - F39T5HO PRS UNV 50/60 Hz	79
	2	120-277	Electronic - Program / Rapid Start	47542	B254PUNV-DGE1C	2 - F54T5HO PRS UNV 50/60 Hz	80
FT24W/4P	2	120-277	Electronic - Program / Rapid Start	47506	C24UNVBES-IP	2- 42 / 36 / 32 / 26 / 24 watt CFL UNV Bottom Exit w/Studs	124
	2	120-277	Electronic - Program / Rapid Start	99651	GE254MVPS90-F	2 or 1 - F54T5HO 120 to 277 UltraStart® PRS High Temp F Can	80
FT24W/4P	2	120-277	Electronic - Program / Rapid Start	99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81
	2	120	Electronic - Program / Rapid Start	97498	GE240RS120	6 - F40 or F34T12 Rapid Start 120V "N" BF ProLine® T12	85
FT24W/4P	2	120	Magnetic - Rapid Start	87623	GEM2FT36RS120	2 - FT36W/2G11 RS 120 (4150P)	130
	1	120-277	Electronic - Program / Rapid Start	47534	B224PUNV-COG1C	2 - F24T5HO PRS UNV 50/60 Hz	79
FT24W/4P	1	120-277	Electronic - Program / Rapid Start	47534	B224PUNV-COG1C	2 - F24T5HO PRS UNV 50/60 Hz	79
	1	120-277	Electronic - Program / Rapid Start	47540	B239PUNV-DOG1C	2 - F39T5HO PRS UNV 50/60 Hz	79
FT24W/4P	1	120-277	Electronic - Program / Rapid Start	47542	B254PUNV-DGE1C	2 - F54T5HO PRS UNV 50/60 Hz	80
	1	120-277	Electronic - Program / Rapid Start	99651	GE254MVPS90-F	2 or 1 - F54T5HO 120 to 277 UltraStart® PRS High Temp F Can	80
FT24W/4P	1	120-277	Electronic - Program / Rapid Start	99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81
	3	277	Electronic - Standard Instant Start	80691	C340SI277RH-IP	3 - FT40W/2G11 IS 277	127
FT24W/4P	3	120	Electronic - Standard Instant Start	80690	C340SI120RH-IP	3 - FT40W/2G11 IS 120	126
	2	120-277	Electronic - Program / Rapid Start	80683	C240PUNVHP-B-IP	2 or 1 - FT40W2G11 PS UNV	125
FT24W/4P	2	277	Electronic - Standard Instant Start	80681	C240SI277RH-IP	2 - FT40W/2G11 IS 277	126
	2	277	Electronic - Standard Instant Start	80691	C340SI277RH-IP	3 - FT40W/2G11 IS 277	127
FT24W/4P	2	120	Electronic - Standard Instant Start	80680	C240SI120RH-IP	2 - FT40W/2G11 IS 120	125
	2	120	Electronic - Standard Instant Start	80690	C340SI120RH-IP	3 - FT40W/2G11 IS 120	126
FT24W/4P	2	120	Magnetic - Rapid Start	87625	GEM2FT40RS120	2 - FT40W/2G11RS RS 120 (4152P)	130
	1	120-277	Electronic - Program / Rapid Start	80683	C240PUNVHP-B-IP	2 or 1 - FT40W2G11 PS UNV	125
FT24W/4P	1	277	Electronic - Standard Instant Start	80681	C240SI277RH-IP	2 - FT40W/2G11 IS 277	126
	1	120	Electronic - Standard Instant Start	80680	C240SI120RH-IP	2 - FT40W/2G11 IS 120	125

Lamp Type	# of Lamps	Voltage	Fluorescent Ballast Type	Ballast Product Code	Ballast Description	Fluorescent Ballast Long Description	Prod Code Page No
Compact Fluorescent Lamps							
FT50W/2G11	4	120-277	Electronic - Program / Rapid Start	99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81
	3	120-277	Electronic - Program / Rapid Start	99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81
FT50W/2G11	2	120-277	Electronic - Program / Rapid Start	99651	GE254MVPS90-F	2 or 1 - F54T5HO 120 to 277 UltraStart® PRS High Temp F Can	80
	2	120-277	Electronic - Program / Rapid Start	99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81
FT50W/2G11	1	120-277	Electronic - Program / Rapid Start	99651	GE254MVPS90-F	2 or 1 - F54T5HO 120 to 277 UltraStart® PRS High Temp F Can	80
	1	120-277	Electronic - Program / Rapid Start	99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81
FT50W/2G11	4	120-277	Electronic - Program / Rapid Start	99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81
	3	120-277	Electronic - Program / Rapid Start	99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81
FT50W/2G11	2	120-277	Electronic - Program / Rapid Start	99651	GE254MVPS90-F	2 or 1 - F54T5HO 120 to 277 UltraStart® PRS High Temp F Can	80
	2	120-277	Electronic - Program / Rapid Start	99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81
FT50W/2G11	1	120-277	Electronic - Program / Rapid Start	47542	B254PUNV-DGE1C	2 - F54T5HO PRS UNV 50/60 Hz	80
	1	120-277	Electronic - Program / Rapid Start	47542	B254PUNV-DGE1C	2 - F54T5HO PRS UNV 50/60 Hz	80
FT50W/2G11	1	120-277	Electronic - Program / Rapid Start	47506	C24UNVBES-IP	2- 42 / 36 / 32 / 26 / 24 watt CFL UNV Bottom Exit w/Studs	124
	1	120-277	Electronic - Program / Rapid Start	99651	GE254MVPS90-F	2 or 1 - F54T5HO 120 to 277 UltraStart® PRS High Temp F Can	80
FT50W/2G11	1	120-277	Electronic - Program / Rapid Start	99649	GE454MVPS90-E	4-1 - F54T5HO 120 to 277 UltraStart® PRS High Temp E Can	81

Quick reference lamp to ballast selection guide (cont.)

Lamp Type	Use with ANSI Lamp Types	Wattage	PC	New GE Description	Circuit Type	Frame Size	Voltage	Cap.	Ignitor	Prod Code Page No	
Metal Halide	High Intensity Discharge (HID) Lamps										
	M110	50	86824	GEM50MLTLC3D-5	HX-HPF	3x4	120/208/240/277	6MFD 280V	MH350-1A	144	
	M148	50	86824	GEM50MLTLC3D-5	HX-HPF	3x4	120/208/240/277	6MFD 280V	MH350-1A	144	
	M143	70	86839	GEM7048TLC3D-5	HX-HPF	3x4	120/480	8MFD 280V	MH350-1A	145	
	M143	70	86847	GEM70MLTLC3D-5	HX-HPF	3x4	120/208/240/277	8MFD 280V	MH350-1A	144	
	M85	70	86576	11210277CTC000C	HX-HPF	F-Can	120/277	N/A	N/A	174	
	M98	70	86578	11210506CTC000C	HX-HPF	F-Can	120/277	N/A	N/A	174	
	M98	70	86839	GEM7048TLC3D-5	HX-HPF	3x4	120/480	8MFD 280V	MH350-1A	145	
	M98	70	86847	GEM70MLTLC3D-5	HX-HPF	3x4	120/208/240/277	8MFD 280V	MH350-1A	144	
	M140	100	86667	GEM10048TLC3D-5	HX-HPF	3x4	120/480	12MFD 280V	MH350-1A	146	
	M140	100	86675	GEM100MLTLC3D-5	HX-HPF	4.25x5.75	120/208/240/277	12MFD 280V	MH350-1A	145	
	M90	100	86574	11210239CTC000I	HX-HPF	F-Can	120/277	N/A	N/A	175	
	M90	100	86667	GEM10048TLC3D-5	HX-HPF	3x4	120/480	12MFD 280V	MH350-1A	146	
	M90	100	86675	GEM100MLTLC3D-5	HX-HPF	4.25x5.75	120/208/240/277	12MFD 280V	MH350-1A	145	
	M92	100	86667	GEM10048TLC3D-5	HX-HPF	3x4	120/480	12MFD 280V	MH350-1A	146	
	M92	100	86675	GEM100MLTLC3D-5	HX-HPF	4.25x5.75	120/208/240/277	12MFD 280V	MH350-1A	145	
	M102	150	86711	GEM15048TLC3D-5	HX-HPF	3x4	120/480	16MFD 280V	MH350-1A	147	
	M102	150	86718	GEM150MLTLC3D-5	HX-HPF	3x4	120/208/240/277	16MFD 280V	MH350-1A	146	
	M107	150	86711	GEM15048TLC3D-5	HX-HPF	3x4	120/480	16MFD 280V	MH350-1A	147	
	M107	150	86718	GEM150MLTLC3D-5	HX-HPF	3x4	120/208/240/277	16MFD 280V	MH350-1A	146	
	M142	150	86711	GEM15048TLC3D-5	HX-HPF	3x4	120/480	16MFD 280V	MH350-1A	147	
	M142	150	86718	GEM150MLTLC3D-5	HX-HPF	3x4	120/208/240/277	16MFD 280V	MH350-1A	146	
	M57	175	86563	11102455CTC000I	CWA	F-Can	120/277	N/A	N/A	175	
	M57	175	87210	GEM175ML5AC3-5	CWA	3x4	120/208/240/277/480	10MFD 400V	N/A	147	
	M57	175	86741	GEM175MLTAC3-5	CWA	3x4	120/208/240/277	10MFD 400V	N/A	148	
	M58	250	86564	1110246CTC000C	CWA	F-Can	120/277	N/A	N/A	176	
	M58	250	87211	GEM250ML5AC3-5	CWA	3x4	120/208/240/277/480	15MFD 400V	N/A	149	
	M58	250	87212	GEM250ML5AC4-5	CWA	4.25x4.75	120/208/240/277/480	15MFD 400V	N/A	150	
	M58	250	86765	GEM250MLTAC3-5	CWA	3x4	120/208/240/277	15MFD 400V	N/A	149	
	M59	400	42670	1110-2475C-TC	CWA	F-Can	120/277	N/A	N/A	176	
	M59	400	80728	1111-2475CTC000I	CWA	F-Can	120/277	N/A	N/A	177	
	M59	400	86803	GEM40048TAC4-5	CWA	4.25x4.75	120/480	24MFD 400V	N/A	151	
	M59	400	72300	GEM400ML5AA4-5	CWA	4.25x4.75	120/208/240/277/480	24MFD 400V	N/A	152	
	M59	400	72149	GEM400MLTAA4-5	CWA	4.25x4.75	120/208/240/277	24MFD 400V	N/A	151	
	M47	1000	86650	GEM100048TAC5-5	CWA	4.25x6.00	120/480	24MFD 480V	N/A	152	
	M47	1000	87213	GEM1000ML5AC5-5	CWA	4.25x6.00	120/208/240/277/480	24MFD 480V	N/A	152	
	M47	1000	86655	GEM1000MLTAC5-5	CWA	4.25x6.00	120/208/240/277	24MFD 480V	N/A	153	
	M48	1500	86693	GEM150048TAC5-5	CWA	4.25x6.00	120/480	32MFD 525V	N/A	153	
	M48	1500	86698	GEM1500MLTAC5-5	CWA	4.25x6.00	120/208/240/277	32MFD 525V	N/A	154	
	M156	20	87490	GEMH20-MLF-120	eHID	3.7x1.6x1.0 Side Lead	120	N/A	N/A	135	
	M130	39	87501	GEMH39-MSF-120	eHID	3.7x3.0x1.2 Side Lead	120	N/A	N/A	135	
	C148	50	87516	GEMH50-MSF-120	eHID	3.7x3.0x1.2 Side Lead	120	N/A	N/A	136	
	M110	50	87516	GEMH50-MSF-120	eHID	3.7x3.0x1.2 Side Lead	120	N/A	N/A	136	
	M148	50	87516	GEMH50-MSF-120	eHID	3.7x3.0x1.2 Side Lead	120	N/A	N/A	136	
	C143	70	87531	GEMH70-MSF-120	eHID	3.7x3.0x1.2 Side Lead	120	N/A	N/A	136	
	C143	70	87546	GEMH70-SLJ-MV	eHID	7.3x2.6x2.2 BE w/Studs	120-277	N/A	N/A	137	
	M139	70	87531	GEMH70-MSF-120	eHID	3.7x3.0x1.2 Side Lead	120	N/A	N/A	136	
	M139	70	87531	GEMH70-MSF-120	eHID	3.7x3.0x1.2 Side Lead	120	N/A	N/A	136	
	M143	70	87531	GEMH70-MSF-120	eHID	3.7x3.0x1.2 Side Lead	120	N/A	N/A	136	
	M143	70	87546	GEMH70-SLJ-MV	eHID	7.3x2.6x2.2 BE w/Studs	120-277	N/A	N/A	137	
M98	70	87531	GEMH70-MSF-120	eHID	3.7x3.0x1.2 Side Lead	120	N/A	N/A	136		
M98	70	87546	GEMH70-SLJ-MV	eHID	7.3x2.6x2.2 BE w/Studs	120-277	N/A	N/A	137		
C140	100	87561	GEMH100-SLJ-MV	eHID	7.3x2.6x2.2 BE w/Studs	120-277	N/A	N/A	137		
M140	100	87561	GEMH100-SLJ-MV	eHID	7.3x2.6x2.2 BE w/Studs	120-277	N/A	N/A	137		
M90	100	87561	GEMH100-SLJ-MV	eHID	7.3x2.6x2.2 BE w/Studs	120-277	N/A	N/A	137		
C142	150	87576	GEMH150-SLJ-MV	eHID	7.3x2.6x2.2 BE w/Studs	120-277	N/A	N/A	138		
M102	150	87576	GEMH150-SLJ-MV	eHID	7.3x2.6x2.2 BE w/Studs	120-277	N/A	N/A	138		
M142	150	87576	GEMH150-SLJ-MV	eHID	7.3x2.6x2.2 BE w/Studs	120-277	N/A	N/A	138		
M137	175	86876	GEP17548TAC3-5	CWA	3x4	120/480	10MFD 400V	MH350-1A	155		
M137	175	86885	GEP175MLTAC3-5	CWA	3x4	120/208/240/277	10MFD 400V	MH350-1A	155		
M152	175	86876	GEP17548TAC3-5	CWA	3x4	120/480	10MFD 400V	MH350-1A	155		
M152	175	86885	GEP175MLTAC3-5	CWA	3x4	120/208/240/277	10MFD 400V	MH350-1A	155		
CMH250	250	29377	GE-MH-250-400-MA	eHID		208-277	N/A	N/A	139		
CMH250	250	89646	GEMH250-400MV50	eHID Dim		208-277	N/A	N/A	139		
M138	250	29377	GE-MH-250-400-MA	eHID		208-277	N/A	N/A	139		
M138	250	89646	GEMH250-400MV50	eHID Dim		208-277	N/A	N/A	139		
M138	250	86926	GEP25048TAC4-5	CWA	4.25x4.75	120/480	15MFD 400V	MH350-1A	156		
M138	250	86935	GEP250MLTAC4-5	CWA	4.25x4.75	120/208/240/277	15MFD 400V	MH350-1A	156		
M153	250	29377	GE-MH-250-400-MA	eHID		208-277	N/A	N/A	139		
M153	250	89646	GEMH250-400MV50	eHID Dim		208-277	N/A	N/A	139		
M153	250	86926	GEP25048TAC4-5	CWA	4.25x4.75	120/480	15MFD 400V	MH350-1A	156		
M153	250	86935	GEP250MLTAC4-5	CWA	4.25x4.75	120/208/240/277	15MFD 400V	MH350-1A	156		
CMH320	320	29377	GE-MH-250-400-MA	eHID		208-277	N/A	N/A	139		
CMH320	320	89646	GEMH250-400MV50	eHID Dim		208-277	N/A	N/A	139		
M132	320	29377	GE-MH-250-400-MA	eHID		208-277	N/A	N/A	139		
M132	320	89646	GEMH250-400MV50	eHID Dim		208-277	N/A	N/A	139		
M132	320	86952	GEP32048TAC4-5	CWA	4.25x4.75	120/480	21MFD 345V	MH350-1A	157		
M132	320	86959	GEP320MLTAC4-5	CWA	4.25x4.75	120/208/240/277	21MFD 345V	MH350-1A	157		
M132	320	86968	GEP320TRIAC4-5	CWA	4.25x4.75	120/277/347	21MFD 345V	MH350-1A	158		

Lamp Type	Use with ANSI Lamp Types	Wattage	PC	New GE Description	Circuit Type	Frame Size	Voltage	Cap.	Ignitor	Prod Code Page No	
Pulse Start	High Intensity Discharge (HID) Lamps										
	M154	320	29377	GE-MH-250-400-MA	eHID		208-277	N/A	N/A	139	
	M154	320	89646	GEMH250-400MV50	eHID Dim		208-277	N/A	N/A	139	
	M154	320	86952	GEP32048TAC4-5	CWA	4.25x4.75	120/480	21MFD 345V	MH350-1A	157	
	M154	320	86959	GEP320MLTAC4-5	CWA	4.25x4.75	120/208/240/277	21MFD 345V	MH350-1A	157	
	M154	320	86968	GEP320TRIAC4-5	CWA	4.25x4.75	120/277/347	21MFD 345V	MH350-1A	158	
	CMH350	350	29377	GE-MH-250-400-MA	eHID		208-277	N/A	N/A	139	
	CMH350	350	89646	GEMH250-400MV50	eHID Dim		208-277	N/A	N/A	139	
	M131	350	29377	GE-MH-250-400-MA	eHID		208-277	N/A	N/A	139	
	M131	350	89646	GEMH250-400MV50	eHID Dim		208-277	N/A	N/A	139	
	M131	350	86984	GEP350277RCE-5	RX-NPF	3.75x4.5	277	22.5MFD 345V	MH350-1A	158	
	M131	350	86984	GEP350MLTAC4-5	CWA	4.25x4.75	120/208/240/277	22.5MFD 345V	MH350-1A	158	
	CMH400	400	29377	GE-MH-250-400-MA	eHID		208-277	N/A	N/A	139	
	CMH400	400	89646	GEMH250-400MV50	eHID Dim		208-277	N/A	N/A	139	
	M135	400	29377	GE-MH-250-400-MA	eHID		208-277	N/A	N/A	139	
	M135	400	89646	GEMH250-400MV50	eHID Dim		208-277	N/A	N/A	139	
	M135	400	86999	GEP40048TAC4-5	CWA	4.25x4.75	120/480	24MFD 400V	MH350-1A	159	
	M135	400	87008	GEP400MLTAC4-5	CWA	4.25x4.75	120/208/240/277	24MFD 400V	MH350-1A	159	
	M155	400	29377	GE-MH-250-400-MA	eHID		208-277	N/A	N/A	139	
	M155	400	89646	GEMH250-400MV50	eHID Dim		208-277	N/A	N/A	139	
	M155	400	87008	GEP400MLTAC4-5	CWA	4.25x4.75	120/208/240/277	24MFD 400V	MH350-1A	159	
	M155	400	86999	GEP40048TAC4-5	CWA	4.25x4.75	120/480	24MFD 400V	MH350-1A	159	
	M149	750	46936	GEP75048TAC5-5	CWA	4.25x6.00	120/480	24MFD 400V	MH750-1B	160	
	M149	750	46934	GEP750MLTAC5-5	CWA	4.25x6.00	120/208/240/277	24MFD 400V	MH750-1B	160	
	M141	1000	72282	GEP1000ML5AC5-5	CWA	4.25x6.00	120/208/240/277/480	24MFD 480V	HPS1000-4B	161	
	M141	1000	72281	GEP1000MLTAC5-5	CWA	4.25x6.00	120/208/240/277	24MFD 480V	HPS1000-4B	161	
	S68	50	87152	GES50MLTLC3D-5	HX-HPF	3x4	120/208/240/277	5MFD 280V	HPS150-3A	162	
	S62	70	86596	12210237CTC000I	HX-HPF	F-Can	120/277	N/A	N/A	178	
	S62	70	86605	1233142U000I	R-HPF, R-NPF	2.81x3.94	120	N/A	N/A	178	
	S62	70	86456	GES7048TLC3D-5	HX-HPF	3x4	120/480	7MFD 300V	HPS150-3A	163	
	S62	70	86587	GES70MLTLC3D-5	HX-HPF	3x4	120/208/240/277	7MFD 300V	HPS150-3A	162	
	S54	100	87068	GES10048TLC3D-5	HX-HPF	3x4	120/480	10MFD 280V	HPS150-3A	164	
	S54	100	87074	GES100MLTLC3D-5	HX-HPF	3x4	120/208/240/277	10MFD 280V	HPS150-3A	163	
	S55	150	86606	1233154U000I	R-NPF	2.81x3.94	120	N/A	N/A	179	
	S55	150	87087	GES15048							



Understanding T8 Fluorescent Ballasts

A comprehensive range of solutions...from GE, the name you trust.

GE introduced the first fluorescent ballast more than 60 years ago. Today we are providing high-frequency electronic ballasts for almost every fluorescent application.

With our UltraMax® and UltraStart® ballasts, we are bringing you the future in ballast performance.

GE revolutionizes lighting again with breakthrough technology. Our patented UltraMax® instant-start and UltraStart® programmed start electronic ballasts transform the power of light into efficiency and savings from store shelves to the installation site. The foundation of the "Ultra" family of ballasts starts with its high efficiency ratings. High efficiency ballasts are a minimum of 90% efficiency with some ballasts nearly 95% efficient which means the ballast only consumes 5-10% of the total system power. These high efficiency ballasts exceed minimum high efficiency standards as established by almost all energy advocate groups, utility rebate programs and the NEMA Premium® ballast program. The ballasts are marked with the Ultra brand as well as the NEMA Premium® ballast mark. These ballasts have multi-voltage control (MVC), which automatically adjusts to handle voltage from 120V through 277V. That cuts the ballast models you need to stock from 40 down to 13, which can dramatically reduce inventory carrying costs. UltraMax® ballasts have ArcGuard Protection, too, with a UL Type CC Anti-Arc Rating. Plus, they're ultra-lamp-friendly, with a low lamp current crest factor of 1.4 for optimal lamp performance. Both UltraMax® and UltraStart® have anti-striation control for better light quality with no lamp striations (spiraling). And the small, low-profile design of these ballasts makes retrofits effortless at the job site. Also unique to our programmed start UltraStart® ballasts is parallel lamp operation which ensures if one lamp fails the others remain on, and quick starting times of less than 700 milliseconds which is necessary in avoiding delays with automatic sensors.



GE Fluorescent Ballast Types

Electronic Instant Start

The most common fluorescent ballast is the instant start and is used typically in long 3 to 10-hour lamp cycle applications. These ballasts are energy efficient and can deliver up to 20% to greater than 40% energy savings when installed with energy-efficient lamps in building retrofits. These ballasts deliver >550 open circuit volts when starting lamps and operate lamps at high frequencies which offers flicker-free operation and better lamp efficiencies. The ballasts are significantly quieter than conventional magnetic ballasts and are backed by GE's ultra system 5-year ballast limited warranty and extended lamp warranties.

UltraMax®

A family of high-efficiency GE T8 instant-start electronic linear fluorescent ballasts designed to optimize GE's T8 Ultra lamps for optimal system energy savings. UltraMax® ballasts have a low lamp current crest factor and virtually "read" and adapt to incoming voltage from 108V to 305V. Other features include UL Type CC Anti-Arc Rating and anti-striation control to eliminate lamp striations and spiraling. These ballasts are offered in ballast factors: low wattage (.77), normal light (.87), normal-high (N+) (1.0) and high (>1.15).

ProLine®

Offered in dedicated or multi-volt (120-277V), these high-performance T8 instant-start ballasts also meet minimum efficiency requirements as established with the NEMA Premium® ballast program. These ballasts are offered in ballast factors: low wattage (.77), normal light (.87), and high (>1.15).

Programmed Start

Programmed Start electronic ballasts have a lamp starting method that preheats lamp filaments while not allowing the lamp to ignite and then applies an open circuit voltage (OCV) to start the lamp. Use Programmed Start ballasts to ensure long lamp life when turning lamps on and off more than five times in a day or in conjunction with any automatic light control or sensor. This type of starting circuit keeps lamp-end blackening to a minimum and improves lamp life performance, especially in applications where the lamps are frequently switched on and off.

UltraStart®

UltraStart® is a family of high-efficiency GE Programmed Start electronic linear fluorescent ballasts that also exceed NEMA Premium® ballast efficiency requirements but are designed to optimize GE's T8 Ultra lamps in frequently switched applications. Instant start ballasts provide 7,000-13,000 starts before 50% lamp failure. UltraStart® provides greater than 100,000 starts before 50% lamp failure. UltraStart® ballasts have the same energy savings and convenience of instant start ballasts but with the long lamp life of a programmed start ballast. These ballasts are offered in ballast factors: programmed start x-low wattage (XL) (.60), low wattage (.71), normal light (.87), and high (>1.15).

Ballast Date Codes

Date Codes

GE electronic ballast manufacturing date codes are located on the upper right-hand corner of the label. The code lists the month, year and day of manufacture. A typical code is C06-073, where the month is listed as A (January), B (February), C (March) (as in this code) followed by the year 06 (2006) and the date of manufacture 073 (the 73rd day of 2006).

Ballast Life

GE electronic ballasts are designed and manufactured to an average life expectancy of 60,000 hours of operation at maximum rated case temperatures. As a rule of thumb, ballast life is doubled for every 10C reduction in ballast case temperature. However there are other variables such as transients, voltage sags and swells, ambient temperature, etc., which affect ballast life as well.

Instant Start vs. Rapid Start Sockets

When using programmed start or dimming ballasts in fixtures, sockets must be 2-pin rapid start type. Fixtures with T8 instant start ballasts must use jumpered rapid start sockets or shunted lamp holders (internal to the lamp holder) that bridge the lamp bi-pins together into one contact on each side of the lamp. If retrofitting from a instant start ballast fixture with shunted sockets to a dimming or programmed start ballast, rapid start type sockets must be used to properly start lamps and maintain rated lamp life.

GE Ballast Electronic nomenclature

G E - 2 3 2 - M V P S - N - 4 2 T			
GE Ballast GE = LFL GEC = CFL	Lamp Watts (Primary Lamp) T8 = 32-four foot, 59-eight foot T12 = 40-four foot, 60-eight foot	IS = Instant Start, standard if not shown RS = Rapid Start PS = Program Start	Ultra-Hi Efficiency 84T, 42T, T = 840, 420 qty OEM pallet packs A, D, E, F = Can sizes BES = Bottom exit with studs SE = Dual - side & bottom exit 3W = 3 way mounting kit
Maximum number of lamps supported by this ballast - 1, 2, 3, 4, 6	Ballast Factor L = Low Power for MAX savings N = Normal for New Fixtures H = High Power, Hi-Light, Hi-Bay		

UltraMax® Instant Start Multi-Voltage High-Efficiency T8 Instant Start Ballasts For F17 (2 ft), F25 (3 ft), F32 (4 ft), F40 (5 ft) Lamps

72258 – GE132MAX-L/ULTRA (replaces 49706)

UltraMax® Instant Start Multi-Voltage High-Efficiency 1 – F32T8 120 to 277 "L".77 BF UltraMax®

General characteristics	
Ballast Type	Electronic – High-Efficiency Multivolt Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Low
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Anti-striation control, Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
72258			

Specifications by lamp and wattage												
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (°F/°C)		
F32T8	1	120	25	0.22 A	0.77	3.08	99	1.5	10	-22/-30		
	1	277	25	0.10 A	0.77	3.08	96	1.5	10	-22/-30		
	1	120	24	0.21 A	0.77	3.20	99	1.5	10	60/16		
F32T8/W/M	1	277	24	0.09 A	0.77	3.20	93	1.5	10	60/16		
	1	120	22	0.20 A	0.77	3.50	99	1.5	10	60/16		
F28T8	1	277	22	0.09 A	0.77	3.50	93	1.5	10	60/16		
	1	120	21	0.18 A			99	1.5	10	0/-18		
F25T8	1	277	21	0.08 A			92	1.5	20	0/-18		
	1	120	21	0.19 A			99	1.5	10	0/-18		
F25T12	1	277	21	0.09 A			92	1.5	20	0/-18		
	1	120	15	0.13 A			99	1.5	12	0/-18		
F17T8	1	277	15	0.07 A			88	1.5	25	0/-18		
	1	120	12	0.10 A			86	1.5	13	0/-18		
FE15T8	1	277	12	0.05 A			99	1.5	27	0/-18		

Other compatible lamps: F32T8/25W

Safety and performance UL Type HL FCC – CLASS A Non-Consumer UL Listed UL Type CC UL Listed RoHS Compliant NEMA Premium

72259 – GE-132MAX-N/ULTRA (replaces 49771)

UltraMax® Instant Start Multi-Voltage High-Efficiency 1 – F32T8 120 to 277 "N".87 BF UltraMax®

General characteristics	
Ballast Type	Electronic – High-Efficiency Multivolt Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Anti-striation control, Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
72259		72260 (replaces 23939)	

Specifications by lamp and wattage												
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (°F/°C)		
F32T8	1	120	28	0.24 A	0.87	3.10	99	1.5	10	-22/-30		
	1	277	28	0.11 A	0.87	3.10	98	1.5	10	-22/-30		
	1	120	27	0.23 A	0.87	3.22	99	1.5	10	60/16		
F32T8/W/M	1	277	27	0.10 A	0.87	3.22	98	1.5	10	60/16		
	1	120	25	0.22 A	0.87	3.48	99	1.5	10	60/16		
F28T8	1	277	25	0.10 A	0.87	3.48	98	1.5	10	60/16		
	1	120	25	0.22 A			99	1.5	10	0/-18		
F25T12	1	277	25	0.10 A			94	1.5	17	0/-18		
	1	277	24	0.09 A			93	1.5	18	0/-18		
F25T8	1	120	23	0.19 A			99	1.5	10	0/-18		
	1	120	17	0.14 A			99	1.5	10	0/-18		
F17T8	1	277	17	0.07 A			90	1.5	22	0/-18		
	1	120	14	0.12 A			99	1.5	11	0/-18		
FE15T8	1	277	14	0.06 A			88	1.5	25	0/-18		

Other compatible lamps: F32T8/25W

Safety and performance UL Type CC UL Type HL FCC – CLASS A Non-Consumer UL Listed UL Type CC UL Listed RoHS Compliant NEMA Premium

UltraMax® Instant Start Multi-Voltage High-Efficiency T8 Instant Start Ballasts For F17 (2 ft), F25 (3 ft), F32 (4 ft), F40 (5 ft) Lamps

49775 – GE232MAX-H/ULTRA

UltraMax® Instant Start Multi-Voltage High-Efficiency 2 or 1 – F32T8 120 to 277 "H".115 BF UltraMax®

General characteristics	
Ballast Type	Electronic – High-Efficiency Multivolt Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	High
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Anti-striation control, Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
49775	47548		

Specifications by lamp and wattage												
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (°F/°C)		
F32T8	2	120	74	0.62 A	1.15	1.55	99	1.5	10	0/-18		
	2	277	73	0.27 A	1.15	1.57	98	1.5	10	0/-18		
	1	277	41	0.16 A	1.15	2.80	96	1.5	10	0/-18		
F32T8	1	120	40	0.36 A	1.15	2.87	99	1.5	10	0/-18		
	2	120	71	0.59 A	1.15	1.61	99	1.5	10	60/16		
F32T8/W/M	2	277	70	0.26 A	1.15	1.64	98	1.5	10	60/16		
	1	120	39	0.34 A	1.15	2.94	99	1.5	10	60/16		
F28T8	1	277	39	0.15 A	1.15	2.94	96	1.5	10	60/16		
	2	120	66	0.58 A	1.15	1.74	99	1.5	10	60/16		
F28T8	2	277	65	0.26 A	1.15	1.76	97	1.5	10	60/16		
	1	120	36	0.32 A	1.15	3.19	99	1.5	10	60/16		
F28T8	1	277	36	0.15 A	1.15	3.19	96	1.5	10	60/16		

Other compatible lamps: FE15T8, F40T8, F25T8, F25T12, F17T8, F32T8/25W

Safety and performance UL Type 1 Outdoor NRCAN UL Type HL FCC – CLASS A Non-Consumer RoHS Compliant UL Class P cUL Listed UL Type CC UL Listed NEMA Premium

72262 – GE232MAX-L/ULTRA (replaces 49707)

UltraMax® Instant Start Multi-Voltage High-Efficiency 2 or 1 – F32T8 120 to 277 "L".77 BF UltraMax®

General characteristics	
Ballast Type	Electronic – High-Efficiency Multivolt Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Low
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Anti-striation control, Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
72262	72256 (replaces 47546)		

Specifications by lamp and wattage												
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (°F/°C)		
F32T8	2	120	51	0.42 A	0.78	1.53	99	1.5	10	-22/-30		
	2	277	50	0.19 A	0.78	1.56	97	1.5	10	-22/-30		
	1	277	29	0.11 A	0.77	2.65	93	1.5	10	-22/-30		
F32T8	1	120	28	0.24 A	0.77	2.75	99	1.5	10	-22/-30		
	2	120	47	0.40 A	0.77	1.64	99	1.5	10	60/16		
F32T8/W/M	2	277	47	0.18 A	0.77	1.63	97	1.5	10	60/16		
	1	277	27	0.11 A	0.77	2.85	93	1.5	10	60/16		
F28T8	1	120	26	0.22 A	0.77	2.96	99	1.5	10	60/16		
	2	120	43	0.38 A	0.74	1.72	99	1.5	10	60/16		
F28T8	2	277	43	0.18 A	0.74	1.72	97	1.5	10	60/16		
	1	277	25	0.10 A	0.77	3.08	92	1.5	10	60/16		
F28T8	1	120	24	0.21 A	0.77	3.20	99	1.5	10	60/16		
	2	120	42	0.36 A			99	1.5	10	0/-18		
F25T12	2	277	42	0.16 A			96	1.5	19	0/-18		
	1	120	24	0.21 A			99	1.5	11	0/-18		
F25T12	1	277	24	0.10 A			91	1.5	20	0/-18		

Other compatible lamps: F25T8, FE15T8, F17T8, F32T8/25W

Safety and performance UL Type 1 Outdoor NRCAN UL Type CC RoHS Compliant UL Type HL FCC – CLASS A Non-Consumer UL Class P cUL Listed UL Listed

UltraMax® Instant Start Multi-Voltage High-Efficiency T8 Instant Start Ballasts For F17 (2 ft), F25 (3 ft), F32 (4 ft), F40 (5 ft) Lamps

72266 – GE232MAX-N/ULTRA (replaces 49772)

UltraMax® Instant Start Multi-Voltage High-Efficiency 2 or 1 – F32T8 120 to 277 “N” .87 BF UltraMax®

General characteristics	
Ballast Type	Electronic – High-Efficiency Multivolt Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Anti-striation control, Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
72266	72267 (replaces 31052)	72268 (replaces 23940)	

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (≥)	Crest Factor (≤)	THD% (≤)	Min. Starting Temp (°F/°C)
F32T8	2	120	54	0.47 A	0.87	1.61	99	1.5	10	-22/-30
	2	277	53	0.21 A	0.87	1.64	96	1.5	10	-22/-30
	1	120	31	0.26 A	0.87	2.80	99	1.5	10	-22/-30
	1	277	31	0.12 A	0.87	2.80	94	1.5	10	-22/-30
	2	120	53	0.45 A	0.87	1.64	99	1.5	10	60/16
	2	277	52	0.20 A	0.87	1.67	96	1.5	10	60/16
F32T8/WM	1	120	29	0.25 A	0.87	3.00	99	1.5	10	60/16
	1	277	29	0.12 A	0.87	3.00	94	1.5	10	60/16
	2	120	49	0.42 A	0.87	1.77	99	1.5	10	60/16
	2	277	48	0.19 A	0.87	1.81	96	1.5	10	60/16
	1	120	27	0.24 A	0.87	3.22	99	1.5	10	60/16
	1	277	27	0.11 A	0.87	3.22	93	1.5	10	60/16
F28T8	2	120	48	0.41 A	0.87	1.67	99	1.5	10	0/-18
	2	277	48	0.18 A	0.87	1.67	99	1.5	10	0/-18
	1	120	27	0.24 A	0.87	3.22	99	1.5	10	0/-18
	1	277	27	0.11 A	0.87	3.22	93	1.5	10	0/-18
	2	120	48	0.41 A	0.87	1.67	99	1.5	10	0/-18
	2	277	48	0.18 A	0.87	1.67	99	1.5	10	0/-18
F25T12	1	120	27	0.24 A	0.87	3.22	99	1.5	10	0/-18
	1	277	27	0.11 A	0.87	3.22	93	1.5	22	0/-18

Other compatible lamps: FE15T8, F25T8, F17T8, F32T8/25W

Safety and performance UL Type 1 Outdoor RoHS Compliant UL Type HL FCC – CLASS A Non-Consumer UL Class P cUL Listed UL Type CC NRCAN UL Listed NEMA Premium

71421 – GE232MAX-N+

UltraMax® Instant Start Multi-Voltage High-Efficiency 2 or 1 – F32T8 120 to 277 “N+” 1.0 BF UltraMax®

General characteristics	
Ballast Type	Electronic – High-Efficiency Multivolt Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	High
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Anti-striation control, Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
71421			

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (≥)	Crest Factor (≤)	THD% (≤)	Min. Starting Temp (°F/°C)
F32T8	2	120	63	0.53 A	1.00	1.59	99	1.5	10	-22/-30
	2	277	62	0.23 A	1.00	1.61	98	1.5	10	-22/-30
	1	120	35	0.13 A	0.96	2.77	96	1.5	10	-22/-30
	1	120	34	0.29 A	0.96	2.81	99	1.5	10	-22/-30
	2	120	60	0.50 A	1.00	1.67	99	1.5	10	60/16
	2	277	60	0.22 A	1.00	1.68	98	1.5	10	60/16
F32T8/WM	1	120	33	0.13 A	0.97	2.91	96	1.5	10	60/16
	1	120	33	0.28 A	0.97	2.96	99	1.5	10	60/16
	2	120	58	0.48 A	1.00	1.79	99	1.5	10	60/16
	2	277	57	0.21 A	1.00	1.75	98	1.5	10	60/16
	1	120	32	0.26 A	0.98	3.11	99	1.5	10	60/16
	1	277	32	0.12 A	0.97	3.02	96	1.5	10	60/16
F28T8	2	120	56	0.47 A	0.97	1.74	99	1.5	10	0/-18
	2	277	56	0.21 A	0.97	1.75	98	1.5	15	0/-18
	1	120	31	0.26 A	0.95	3.11	99	1.5	10	0/-18
	1	277	31	0.12 A	0.95	3.05	96	1.5	18	0/-18

Other compatible lamps: FE15T8, F25T8, F17T8, F40T8, F32T8/25W

Safety and performance UL Type 1 Outdoor RoHS Compliant UL Type CC UL Type HL NRCAN FCC – CLASS A Non-Consumer UL Class P cUL Listed UL Listed NEMA Premium

40 See page 195 for warranty information.

- Energy-saving high-efficiency instant-start electronic ballast (> 90%)
- Multi-voltage technology handles voltage from 120 to 277V
- UL Type CC Rating provides protection against arcing in electrical devices
- Active Current Regulation regulates the output to each lamp with individual lamp inverter modules
- Anti-striation control for better light quality, with no striations
- Lamp frequency >70kHz

Dimensions	
Wiring diagram – LFL 1B – see example on page 72	
Case dimensions – Ref Drawing – A – see page 75	
Length (L)	9.5 in (241.30 mm)
Width (W)	1.3 in (33.00 mm)
Height (H)	1.18 in (30.00 mm)

Mounting dimensions	
Mount Length (M)	8.8 in (225.80 mm)
Mount Width (X or F)	0.87 in (22.00 mm)
Mount Slots (MS)	0.3 in (7.92 mm)
Weight	1.06 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	18 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
Length (± 1 in)	
Red	41 in (1041 mm)
White	25 in (635 mm)
Black	25 in (635 mm)
Blue	34 in (864 mm)

UltraMax® Instant Start Multi-Voltage High-Efficiency T8 Instant Start Ballasts For F17 (2 ft), F25 (3 ft), F32 (4 ft), F40 (5 ft) Lamps

71714 – GE332MAX-H/ULTRA (replaces 49776)

UltraMax® Instant Start Multi-Voltage High-Efficiency 3 or 2 – F32T8 120 to 277 “H” 1.18 BF UltraMax®

General characteristics	
Ballast Type	Electronic – High-Efficiency Multivolt Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	High
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Anti-striation control, Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
71714	71715 (replaces 47549)		

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (≥)	Crest Factor (≤)	THD% (≤)	Min. Starting Temp (°F/°C)
F32T8	3	120	111	0.92 A	1.18	1.06	99	1.5	10	-22/-30
	3	277	109	0.40 A	1.18	1.08	98	1.5	10	-22/-30
	2	120	77	0.68 A	1.15	1.49	99	1.5	10	-22/-30
	2	277	76	0.30 A	1.15	1.51	97	1.5	10	-22/-30
	3	120	106	0.89 A	1.15	1.08	99	1.5	10	60/16
	3	277	104	0.39 A	1.15	1.10	98	1.5	10	60/16
F32T8/WM	2	120	73	0.65 A	1.15	1.57	99	1.5	10	60/16
	2	277	73	0.28 A	1.15	1.57	97	1.5	10	60/16
	3	120	98	0.86 A	1.15	1.17	99	1.5	10	60/16
	3	277	96	0.37 A	1.15	1.19	98	1.5	10	60/16
	2	120	68	0.59 A	1.15	1.69	99	1.5	10	60/16
	2	277	67	0.26 A	1.15	1.71	97	1.5	10	60/16
F28T8	3	120	98	0.86 A	1.15	1.08	99	1.5	10	0/-18
	3	277	96	0.37 A	1.15	1.08	98	1.5	13	0/-18
	2	120	68	0.60 A	1.15	1.69	99	1.5	10	0/-18
	2	277	68	0.26 A	1.15	1.71	97	1.5	10	0/-18

Other compatible lamps: FE15T8, F40T8, F25T8, F17T8, F32T8/25W

Safety and performance UL Type 1 Outdoor UL Type HL FCC – CLASS A Non-Consumer UL Class P cUL Listed UL Type CC UL Listed RoHS Compliant NEMA Premium

71717 – GE332MAX-L/ULTRA (replaces 49708)

UltraMax® Instant Start Multi-Voltage High-Efficiency 3 or 2 – F32T8 120 to 277 “L” .77 BF UltraMax®

General characteristics	
Ballast Type	Electronic – High-Efficiency Multivolt Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Low
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Anti-striation control, Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
71717	71718 (replaces 31055)		

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (≥)	Crest Factor (≤)	THD% (≤)	Min. Starting Temp (°F/°C)
F32T8	3	120	73	0.63 A	0.77	1.05	99	1.5	10	-22/-30
	3	277	72	0.27 A	0.77	1.06	98	1.5	10	-22/-30
	2	120	53	0.45 A	0.77	1.45	99	1.5	10	-22/-30
	2	277	53	0.20 A	0.77	1.45	97	1.5	10	-22/-30
	3	120	69	0.60 A	0.77	1.11	99	1.5	10	60/16
	3	277	68	0.26 A	0.77	1.13	98	1.5	10	60/16
F32T8/WM	2	120	49	0.42 A	0.77	1.57	99	1.5	10	60/16
	2	277	49	0.19 A	0.77	1.57	97	1.5	10	60/16
	3	120	65	0.57 A	0.77	1.18	99	1.5	10	60/16
	3	277	65	0.25 A	0.77	1.18	98	1.5	10	60/16
	2	120	46	0.40 A	0.77	1.67	99	1.5	10	60/16
	2	277	46	0.18 A	0.77	1.67	96	1.5	10	60/16
F28T8	3	120	63	0.53 A	0.77	1.05	99	1.5	10	0/-18
	3	277	63	0.24 A	0.77	1.05	97	1.5	13	0/-18
	2	120	63	0.56 A	0.77	1.05	99	1.5	18	0/-18
	2									

UltraMax® Instant Start Multi-Voltage High-Efficiency T8 Instant Start Ballasts For F17 (2 ft), F25 (3 ft), F32 (4 ft), F40 (5 ft) Lamps

71719 – GE332MAX-N/ULTRA (replaces 49773)

UltraMax® Instant Start Multi-Voltage High-Efficiency 3 or 2 – F32T8 120 to 277 “N” .87 BF UltraMax®

General characteristics	
Ballast Type	Electronic – High-Efficiency Multivolt Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Anti-striation control, Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
71719	71721 (replaces 31053)	71722 (replaces 23941)	

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (≥)	Crest Factor (≤)	THD% (≤)	Min. Starting Temp (°F/°C)
F32T8	3	120	82	0.70 A	0.87	1.06	99	1.5	10	-22/-30
	3	277	80	0.30 A	0.87	1.08	98	1.5	10	-22/-30
	2	120	58	0.49 A	0.87	1.50	99	1.5	10	-22/-30
	2	277	58	0.22 A	0.87	1.50	97	1.5	10	-22/-30
	3	120	78	0.66 A	0.87	1.11	99	1.5	10	60/16
	3	277	77	0.29 A	0.87	1.12	98	1.5	10	60/16
F32T8/WM	2	120	55	0.46 A	0.87	1.58	99	1.5	10	60/16
	2	277	55	0.21 A	0.87	1.58	97	1.5	10	60/16
	3	120	72	0.63 A	0.87	1.20	99	1.5	10	60/16
	3	277	71	0.28 A	0.87	1.22	98	1.5	10	60/16
	2	120	51	0.44 A	0.87	1.70	99	1.5	10	60/16
	2	277	51	0.20 A	0.87	1.70	97	1.5	10	60/16
F28T8	3	120	72	0.61 A			99	1.5	10	0/-18
	3	277	71	0.27 A			98	1.5	13	0/-18
	2	120	49	0.44 A			99	1.5	10	0/-18
	2	277	49	0.19 A			97	1.5	16	0/-18

Other compatible lamps: FE15T8, F25T8, F17T8, F32T8/25W

Safety and performance UL Type 1 Outdoor UL Type HL FCC – CLASS A Non-Consumer UL Class P cUL Listed UL Type CC UL Listed RoHS Compliant NEMA Premium

71422 – GE332MAX-N+

UltraMax® Instant Start Multi-Voltage High-Efficiency 3 or 2 – F32T8 120 to 277 “N+” 1.0 BF UltraMax®

General characteristics	
Ballast Type	Electronic – High-Efficiency Multivolt Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	221°F (105°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal – High
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Anti-striation control, Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
71422			

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (≥)	Crest Factor (≤)	THD% (≤)	Min. Starting Temp (°F/°C)
F32T8	3	120	91	0.77 A	1.00	1.09	99	1.5	10	-22/-30
	3	277	90	0.33 A	1.00	1.11	98	1.5	10	-22/-30
	2	120	64	0.54 A	0.94	1.47	99	1.5	10	-22/-30
	2	277	64	0.24 A	0.94	1.48	97	1.5	10	-22/-30
	3	120	87	0.73 A	1.00	1.15	99	1.5	10	60/16
	3	277	86	0.32 A	1.00	1.17	98	1.5	10	60/16
F32T8/WM	2	120	61	0.52 A	0.95	1.55	99	1.5	10	60/16
	2	277	61	0.23 A	0.95	1.56	97	1.5	10	60/16
	3	120	83	0.69 A	1.00	1.21	99	1.5	10	60/16
	3	277	82	0.30 A	1.00	1.23	98	1.5	10	60/16
	2	120	59	0.50 A	0.96	1.62	99	1.5	10	60/16
	2	277	59	0.22 A	0.95	1.62	97	1.5	10	60/16
F28T8	3	120	80	0.67 A	0.93	1.16	99	1.5	10	0/-18
	3	277	79	0.29 A	0.93	1.18	98	1.5	16	0/-18
	2	120	57	0.48 A	0.93	1.63	99	1.5	10	0/-18
	2	277	57	0.22 A	0.93	1.65	97	1.5	19	0/-18

Other compatible lamps: F25T8, F15T8, F40T8, F17T8, F32T8/25W

Safety and performance RoHS Compliant UL Type 1 Outdoor UL Type CC UL Type HL FCC – CLASS A Non-Consumer UL Class P cUL Listed UL Listed NEMA Premium

UltraMax® Instant Start Multi-Voltage High-Efficiency T8 Instant Start Ballasts For F17 (2 ft), F25 (3 ft), F32 (4 ft), F40 (5 ft) Lamps

71723 – GE432MAX-H/ULTRA (replaces 49777)

UltraMax® Instant Start Multi-Voltage High-Efficiency 4 or 3 – F32T8 120 to 277 “H” 1.18 BF UltraMax®

General characteristics	
Ballast Type	Electronic – High-Efficiency Multivolt Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	High
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Anti-striation control, Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
71723	71724 (replaces 47550)		

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (≥)	Crest Factor (≤)	THD% (≤)	Min. Starting Temp (°F/°C)
F32T8	4	120	148	1.36 A	1.18	0.80	99	1.5	10	-22/-30
	4	277	145	0.59 A	1.18	0.81	98	1.5	10	-22/-30
	3	120	115	1.04 A	1.15	1.00	99	1.5	10	-22/-30
	3	277	113	0.45 A	1.15	1.01	97	1.5	10	-22/-30
	4	120	145	1.31 A	1.15	0.79	99	1.5	10	60/16
	4	277	141	0.56 A	1.15	0.81	97	1.5	10	60/16
F32T8/WM	3	120	110	0.99 A	1.15	1.04	99	1.5	10	60/16
	3	277	109	0.43 A	1.15	1.05	97	1.5	10	60/16
	4	120	134	1.21 A			99	1.5	10	0/-18
	4	277	132	0.52 A			97	1.5	14	0/-18
	3	120	102	0.92 A			99	1.5	10	0/-18
	3	277	101	0.40 A			97	1.5	17	0/-18
F25T12	4	120	133	1.20 A	1.15	0.86	99	1.5	10	60/16
	4	277	131	0.52 A	1.15	0.87	98	1.5	10	60/16
	3	120	101	0.91 A	1.15	1.13	99	1.5	10	60/16
	3	277	100	0.40 A	1.15	1.15	97	1.5	10	60/16

Other compatible lamps: FE15T8, F40T8, F25T8, F17T8, F32T8/25W

Safety and performance UL Type 1 Outdoor UL Type HL FCC – CLASS A Non-Consumer UL Class P cUL Listed UL Type CC UL Listed RoHS Compliant NEMA Premium

71725 – GE432MAX-L/ULTRA (replaces 49709)

UltraMax® Instant Start Multi-Voltage High-Efficiency 4 or 3 – F32T8 120 to 277 “L” .77 BF UltraMax®

General characteristics	
Ballast Type	Electronic – High-Efficiency Multivolt Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Low
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Anti-striation control, Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
71725	71726 (replaces 47547)		

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (≥)	Crest Factor (≤)	THD% (≤)	Min. Starting Temp (°F/°C)
F32T8	4	120	97	0.84 A	0.77	0.79	99	1.5	10	-22/-30
	4	277	96	0.37 A	0.77	0.80	98	1.5	10	-22/-30
	3	120	78	0.65 A	0.77	0.98	99	1.5	10	-22/-30
	3	277	77	0.29 A	0.77	1.00	97	1.5	10	-22/-30
	4	120	92	0.80 A	0.77	0.83	99	1.5	10	60/16
	4	277	91	0.36 A	0.77	0.84	98	1.5	10	60/16
F32T8/WM	3	120	72	0.61 A	0.77	1.06	99	1.5	10	60/16
	3	277	72	0.27 A	0.77	1.06	97	1.5	10	60/16
	4	120	87	0.77 A	0.77	0.88	99	1.5	10	60/16
	4	277	86	0.34 A	0.77	0.89	98	1.5	10	60/16
	3	120	67	0.59 A	0.77	1.14	99	1.5	10	60/16
	3	277	67	0.26 A	0.77	1.14	97	1.5	10	60/16
F28T8	4	120	84	0.71 A			99	1.5	10	0/-18
	4	277	83	0.31 A			97	1.5	15	0/-18
	3	120	65	0.58 A			99	1.5	10	0/-18
	3	277	65	0.25 A			97	1.5	18	0/-18

Other compatible lamps: FE15T8, F25T8, F17T8, F32T8/25W

Safety and performance UL Type 1 Outdoor UL Type CC UL Type HL FCC – CLASS A Non-Consumer RoHS Compliant UL Class P cUL Listed UL Listed NEMA Premium

UltraMax® Instant Start Multi-Voltage High-Efficiency T8 Instant Start Ballasts For F17 (2 ft), F25 (3 ft), F32 (4 ft), F40 (5 ft) Lamps

71727 – GE432MAX-N/ULTRA (replaces 49774)

UltraMax® Instant Start Multi-Voltage High-Efficiency 4 or 3 – F32T8 120 to 277 “N” .87 BF UltraMax®

General characteristics	
Ballast Type	Electronic – High-Efficiency Multivolt Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Anti-striation control, Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
71727	71729 (replaces 31054)	71730 (replaces 23942)	

Specifications by lamp and wattage

Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (≥)	Crest Factor (≤)	THD% (≤)	Min. Starting Temp (°F/°C)
F32T8	4	120	109	0.94 A	0.87	0.79	99	1.5	10	-22/-30
	4	277	107	0.40 A	0.87	0.81	98	1.5	10	-22/-30
	3	120	85	0.72 A	0.87	1.02	99	1.5	10	-22/-30
	3	277	84	0.32 A	0.87	1.03	99	1.5	10	-22/-30
	4	120	105	0.90 A	1.5	0.82	99	1.5	10	60/16
F32T8/WM	4	277	103	0.39 A	0.87	0.84	98	1.5	10	60/16
	3	120	81	0.68 A	0.87	1.07	99	1.5	10	60/16
	3	277	80	0.30 A	0.87	1.08	97	1.5	10	60/16
	4	120	98	0.84 A	0.87	0.88	99	1.5	10	60/16
	4	277	96	0.37 A	0.87	0.90	98	1.5	10	60/16
F28T8	3	120	76	0.67 A	0.87	1.14	99	1.5	10	60/16
	3	277	75	0.29 A	0.87	1.16	97	1.5	10	60/16
	4	120	91	0.76 A	1.5	0.99	99	1.5	10	0/-18
	4	277	89	0.33 A	0.87	0.98	98	1.5	14	0/-18
	3	120	72	0.64 A	0.87	0.99	99	1.5	10	0/-18
F25T8	3	277	71	0.28 A	0.87	0.97	97	1.5	17	0/-18

Other compatible lamps: FE15T8, F25T12, F17T8, F32T8/25W

Safety and performance UL Type 1 Outdoor UL Type HL FCC – CLASS A Non-Consumer UL Class P cUL Listed UL Type CC UL Listed RoHS Compliant NEMA Premium

71423 – GE432MAX-N+

UltraMax® Instant Start Multi-Voltage High-Efficiency 4 or 3 – F32T8 120 to 277 “N+” 1.0 BF UltraMax®

General characteristics	
Ballast Type	Electronic – High-Efficiency Multivolt Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	221°F (105°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal – High
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Anti-striation control, Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
71423			

Specifications by lamp and wattage

Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (≥)	Crest Factor (≤)	THD% (≤)	Min. Starting Temp (°F/°C)
F32T8	4	120	124	1.03 A	1.00	0.81	99	1.5	10	-22/-30
	4	277	121	0.45 A	1.00	0.83	98	1.5	10	-22/-30
	3	120	113	0.45 A	1.15	1.02	97	1.5	10	-22/-30
	3	277	97	0.81 A	0.97	1.00	99	1.5	10	-22/-30
	4	120	119	1.00 A	1.00	0.84	99	1.5	10	60/16
F32T8/WM	4	277	117	0.44 A	1.00	0.86	98	1.5	10	60/16
	3	120	92	0.77 A	0.99	1.07	99	1.5	10	60/16
	3	277	92	0.35 A	0.99	1.08	97	1.5	10	60/16
	4	120	114	0.95 A	1.00	0.88	99	1.5	10	60/16
	4	277	96	0.36 A	1.00	1.04	97	1.5	10	60/16
F28T8	3	120	89	0.74 A	0.99	1.12	99	1.5	10	60/16
	3	277	88	0.33 A	0.99	1.13	96	1.5	10	60/16
	4	120	110	0.92 A	0.96	0.87	99	1.5	10	0/-18
	4	277	108	0.40 A	0.96	0.89	97	1.5	16	0/-18
	3	120	86	0.72 A	0.97	1.13	99	1.5	10	0/-18
F25T12	3	277	86	0.32 A	0.97	1.13	96	1.5	19	0/-18

Other compatible lamps: FE15T8, F25T8, F40T8, F17T8, F32T8/25W

Safety and performance UL Type 1 Outdoor UL Type CC UL Type HL FCC – CLASS A Non-Consumer UL Class P cUL Listed UL Listed RoHS Compliant NEMA Premium

See page 195 for warranty information.

UltraMax® Instant Start Multi-Voltage High-Efficiency T8 Instant Start Ballasts For 46 – 59W 4 ft – 8 ft Slimline Lamps

49766 – GE159MAX-N/ULTRA

UltraMax® Instant Start Multi-Voltage High-Efficiency 1 – F96T8 120 to 277 “N” .87 BF UltraMax®

General characteristics	
Ballast Type	Electronic – High-Efficiency Multivolt Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Anti-striation control, Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
49766			

Specifications by lamp and wattage

Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (≥)	Crest Factor (≤)	THD% (≤)	Min. Starting Temp (°F/°C)
F96T8	1	120	54	0.46 A	0.87	1.61	99	1.5	10	0/-18
	1	277	53	0.21 A	0.87	1.64	95	1.5	15	0/-18
F96T8/WM	1	120	51	0.43 A	0.87	1.70	99	1.5	10	0/-18
	1	277	51	0.20 A	0.87	1.70	95	1.5	15	0/-18
F40T8	1	120	38	0.32 A	0.87	1.70	99	1.5	10	0/-18
	1	277	38	0.15 A	0.87	1.70	95	1.5	18	0/-18
F96T8/WMP	1	120	38	0.15 A	0.87	1.70	99	1.5	10	0/-18
	1	277	38	0.15 A	0.87	1.70	95	1.5	15	0/-18

Safety and performance UL Type 1 Outdoor UL Type HL FCC – CLASS A Non-Consumer UL Class P cUL Listed UL Type CC UL Listed RoHS Compliant

49767 – GE259MAX-N/ULTRA

UltraMax® Instant Start Multi-Voltage High-Efficiency 2 or 1 – F96T8 120 to 277 “N” .87 BF UltraMax®

General characteristics	
Ballast Type	Electronic – High-Efficiency Multivolt Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Anti-striation control, Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
49767		23954	

Specifications by lamp and wattage

Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (≥)	Crest Factor (≤)	THD% (≤)	Min. Starting Temp (°F/°C)
F96T8	2	120	107	0.91 A	0.87	0.81	99	1.5	10	0/-18
	2	277	105	0.40 A	0.87	0.82	98	1.5	15	0/-18
	1	120	62	0.53 A	0.87	1.40	99	1.5	10	0/-18
	1	277	62	0.24 A	0.87	1.40	97	1.5	20	0/-18
	2	120	102	0.87 A	0.87	0.85	99	1.5	10	50/10
F96T8/WM	2	277	100	0.38 A	0.87	0.87	98	1.5	15	50/10
	1	120	59	0.50 A	0.87	1.47	99	1.5	10	50/10
	1	277	59	0.23 A	0.87	1.47	97	1.5	20	50/10
	2	120	85	0.78 A	0.89	1.04	99	1.5	10	50/10
	2	277	84	0.32 A	0.89	1.05	98	1.5	15	50/10
F96T8/WMP	1	120	59	0.50 A	0.87	1.47	99	1.5	10	50/10
	1	277	59	0.23 A	0.87	1.47	97	1.5	20	50/10
	2	120	79	0.72 A	0.87	0.99	99	1.5	10	0/-18
	2	277	78	0.29 A	0.87	0.98	98	1.5	13	0/-18
	1	120	44	0.39 A	0.87	0.99	99	1.5	10	0/-18
F72T8	1	277	44	0.17 A	0.87	0.96	96	1.5	20	0/-18

Other compatible lamps: F40T8

Safety and performance UL Type 1 Outdoor UL Type CC UL Type HL FCC – CLASS A Non-Consumer UL Class P cUL Listed UL Listed RoHS Compliant

See page 195 for warranty information.

ProLine® T8 Multivolt 120V – 277V

T8 Instant Start Ballasts For F17 (2 ft), F25 (3 ft), F32 (4 ft), F40 (5 ft) Lamps

72269 – GE-132-MV-N (replaces 30189)

ProLine® T8 Multivolt 120V – 277V

1 – F32T8 120 to 277 “N” .87 BF Multivolt ProLine®

General characteristics	
Ballast Type	Electronic – Multivolt Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
72269	72270 (replaces 30268)		

Specifications by lamp and wattage

Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (°F/°C)
F32T8	1	120	29	0.28 A	0.87	3.00	99	1.7	10	0/-18
	1	277	28	0.13 A	0.87	3.11	95	1.7	10	0/-18
F32T8/WM	1	120	29	0.25 A	0.83	2.88	99	1.7	10	60/16
	1	277	29	0.12 A	0.83	2.87	95	1.7	10	60/16
F28T8	1	120	27	0.22 A	0.80	3.01	99	1.7	10	60/16
	1	277	27	0.11 A	0.80	3.01	94	1.7	10	60/16
F25T8	1	120	25	0.21 A	0.88	3.54	99	1.7	10	0/-18
	1	277	25	0.10 A	0.88	3.52	94	1.7	15	0/-18
F17T8	1	277	19	0.08 A	0.88	4.68	91	1.7	20	0/-18
	1	120	18	0.16 A	0.88	4.78	99	1.7	10	0/-18

Other compatible lamps: F32T8/25W

Safety and performance



30198 – GE-232-MV-H

ProLine® T8 Multivolt 120V – 277V

2 or 1 – F32T8 120 to 277 “H” 1.18 BF Multivolt ProLine®

General characteristics	
Ballast Type	Electronic – Multivolt Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	High
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

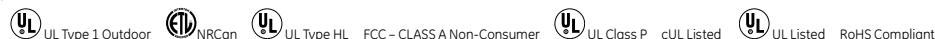
Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
30198	30275		

Specifications by lamp and wattage

Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (°F/°C)
F32T8	2	120	77	0.65 A	1.18	1.53	99	1.7	10	0/-18
	2	277	76	0.28 A	1.18	1.55	98	1.7	10	0/-18
	1	120	48	0.44 A	1.34	2.79	99	1.7	10	0/-18
	1	277	48	0.20 A	1.34	2.79	97	1.7	10	0/-18
F32T8/WM	2	120	70	0.63 A	1.13	1.61	99	1.7	10	60/16
	2	277	69	0.28 A	1.13	1.63	98	1.7	10	60/16
	1	120	45	0.42 A	1.30	2.88	99	1.7	10	60/16
	1	277	45	0.19 A	1.30	2.88	96	1.7	10	60/16
F28T8	2	120	65	0.57 A	1.10	1.68	99	1.7	10	60/16
	2	277	64	0.26 A	1.10	1.71	98	1.7	10	60/16
	1	120	42	0.39 A	1.28	3.04	99	1.7	10	60/16
	1	277	42	0.18 A	1.28	3.04	96	1.7	10	60/16
F25T8	2	120	57	0.51 A	1.16	2.03	99	1.7	7	0/-18
	2	277	57	0.23 A	1.16	2.03	97	1.7	15	0/-18
	1	120	38	0.35 A	1.32	3.47	99	1.7	10	0/-18
	1	277	38	0.16 A	1.32	3.47	96	1.7	18	0/-18

Other compatible lamps: F17T8, F40T8, F32T8/25W

Safety and performance



- High-performance electronic ballast for all general fluorescent applications
- Instant start electronic ballast for long lamp starting cycles and low initial cost
- Multi-voltage technology handles voltage from 120 to 277V
- Lightweight, low-profile housing
- Parallel lamp operation means system maintenance is easier to manage

Dimensions	
Wiring diagram – LFL 1A – see example on page 72	
Case dimensions – Ref Drawing – A – see page 75	
Length (L)	9.5 in (241.30 mm)
Width (W)	1.3 in (33.00 mm)
Height (H)	1.18 in (30.00 mm)
Mounting dimensions	
Mount Length (M)	8.8 in (225.80 mm)
Mount Width (X or F)	0.87 in (22.00 mm)
Mount Slots (MS)	0.3 in (7.92 mm)
Weight	1.06 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	18 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
Length (± 1 in)	
Red	48 in (1219 mm)
White	22 in (559 mm)
Blue	30 in (762 mm)
Black	22 in (559 mm)

ProLine® T8 Multivolt 120V – 277V

T8 Instant Start Ballasts For F17 (2 ft), F25 (3 ft), F32 (4 ft), F40 (5 ft) Lamps

72273 – GE-232-MV-L (replaces 30247)

ProLine® T8 Multivolt 120V – 277V

2 or 1 – F32T8 120 to 277 “L” .77 BF Multivolt ProLine®

General characteristics	
Ballast Type	Electronic – Multivolt Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Low
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
72273	72274 (replaces 30308)		

Specifications by lamp and wattage

Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (°F/°C)
	2	120	49.5	0.50 A	0.79	1.58	99	1.7	10	0/-18
	2	277	48.6	0.22 A	0.79	1.60	96	1.7	10	0/-18
F32T8	1	120	35.0	0.32 A	0.94	2.68	99	1.7	10	0/-18
	1	277	35.0	0.14 A	0.94	2.68	94	1.7	10	0/-18
F32T8/WM	2	120	48.0	0.43 A	0.75	1.57	99	1.7	10	60/16
	2	277	47.0	0.19 A	0.75	1.59	96	1.7	10	60/16
F28T8	1	120	31.0	0.29 A	0.90	2.90	99	1.7	10	60/16
	1	277	31.0	0.13 A	0.90	2.90	94	1.7	10	60/16
F25T8	2	120	44.0	0.41 A	0.74	1.69	99	1.7	10	60/16
	2	277	43.0	0.17 A	0.74	1.71	96	1.7	10	60/16
F17T8	1	120	29.0	0.28 A	0.86	2.96	99	1.7	10	60/16
	1	277	29.0	0.13 A	0.86	2.96	94	1.7	10	60/16
F17T8	2	120	40.0	0.36 A	0.81	2.01	99	1.7	10	0/-18
	2	277	40.0	0.16 A	0.81	2.03	95	1.7	18	0/-18
F17T8	1	120	27.0	0.25 A	0.94	3.48	99	1.7	10	0/-18
	1	277	27.0	0.12 A	0.94	3.48	93	1.7	21	0/-18

Other compatible lamps: F40T8, F17T8, F32T8/25W

Safety and performance



72275 – GE-232-MV-N (replaces 30191)

ProLine® T8 Multivolt 120V – 277V

2 or 1 – F32T8 120 to 277 “N” .87 BF Multivolt ProLine®

General characteristics	
Ballast Type	Electronic – Multivolt Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
72275	72276 (replaces 30269)	72277 (replaces 97709)	

Specifications by lamp and wattage

Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (°F/°C)
F32T8	2	120	55	0.52 A	0.87	1.58	99.0	1.7	10	0/-18
	2	277	54	0.23 A	0.87	1.61	96.8	1.7	10	0/-18
	1	120	42	0.16 A	1.02	2.44	95.6	1.7	10	0/-18
	1	277	41	0.36 A	1.02	2.46	99.0	1.7	10	0/-18
F32T8/WM	2	120	55	0.48 A	0.82	1.50	99.0	1.7	10	60/16
	2	277	54	0.21 A	0.82	1.52	96.5	1.7	10	60/16
	1	120	40	0.33 A	0.97	2.45	95.0	1.7	10	60/16
	1	277	40	0.15 A	0.97	2.44	95.5	1.7	10	60/16
F28T8	2	120	49	0.44 A	0.80	1.63	99.0	1.7	10	60/16
	2	277	48	0.19 A	0.80	1.67	96.2	1.7	10	60/16
	1	120	36	0.14 A	0.94	2.63	95.4	1.7	10	60/16
	1	277	33	0.29 A	0.94	2.89	99.0	1.7	10	60/16
F25T8	2	120	46	0.41 A	0.85	1.85	99.0	1.7	10	0/-18
	2	277	46	0.18 A	0.85	1.86	96.0	1.7	16	0/-18
	1	120	34	0.13 A	1.03	3.06	94.7	1.7	19	0/-18
	1	277	33	0.29 A	1.03	3.08	99.0	1.7	10	0/-18

Other compatible lamps: F17T8, F40T8, F32T8/25W

Safety and performance



ProLine® T8 Multivolt 120V – 277V

T8 Instant Start Ballasts For F17 (2 ft), F25 (3 ft), F32 (4 ft), F40 (5 ft) Lamps

30199 – GE-332-MV-H

ProLine® T8 Multivolt 120V – 277V

3 or 2 – F32T8 120 to 277 “H” 1.15 BF Multivolt ProLine®

General characteristics	
Ballast Type	Electronic – Multivolt Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	High
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
30199	30296		

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (*F/*C)
F32T8	3	120	113	0.95 A	1.15	1.01	99	1.7	10	0/-18
	3	277	110	0.41 A	1.15	1.04	98	1.7	10	0/-18
	2	120	86	0.79 A	1.27	1.47	99	1.7	10	0/-18
	2	277	85	0.34 A	1.27	1.49	97	1.7	10	0/-18
	3	120	103	0.91 A	1.11	1.07	99	1.7	10	60/16
	3	277	101	0.39 A	1.11	1.09	98	1.7	10	60/16
F32T8/WM	2	120	79	0.73 A	1.22	1.54	99	1.7	10	60/16
	2	277	78	0.32 A	1.22	1.56	97	1.7	10	60/16
	2	120	102	0.95 A			99	1.7	8	0/-18
F40T8	2	277	100	0.41 A			98	1.7	15	0/-18
	3	120	94	0.84 A	1.07	1.13	99	1.7	10	0/-18
	3	277	92	0.36 A	1.07	1.16	98	1.7	10	0/-18
F28T8	2	120	72	0.67 A	1.20	1.66	99	1.7	10	0/-18
	2	277	72	0.30 A	1.20	1.66	97	1.7	10	0/-18

Other compatible lamps: F25T8, F17T8, F32T8/25W

Safety and performance UL Type 1 Outdoor UL Type HL FCC – CLASS A Non-Consumer UL Class P cUL Listed UL Listed RoHS Compliant

30255 – GE-332-MV-L

ProLine® T8 Multivolt 120V – 277V

3 or 2 – F32T8 120 to 277 “L” .77 BF Multivolt ProLine®

General characteristics	
Ballast Type	Electronic – Multivolt Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Low
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
30255	30309		

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (*F/*C)
F32T8	3	120	74	0.70 A	0.78	1.05	99	1.7	10	0/-18
	3	277	73	0.31 A	0.80	1.06	98	1.7	10	0/-18
	2	120	60	0.55 A	0.87	1.46	99	1.7	10	0/-18
	2	277	59	0.24 A	0.87	1.47	97	1.7	10	0/-18
	3	120	69	0.62 A	0.74	1.07	99	1.7	10	60/16
	3	277	68	0.27 A	0.74	1.08	98	1.7	10	60/16
F32T8/WM	2	120	56	0.50 A	0.83	1.51	99	1.7	10	60/16
	2	277	55	0.22 A	0.83	1.52	97	1.7	10	60/16
	2	120	69	0.63 A			99	1.7	8	0/-18
F40T8	2	277	68	0.27 A			98	1.7	15	0/-18
	3	120	63	0.57 A	0.74	1.17	99	1.7	10	60/16
	3	277	63	0.25 A	0.74	1.18	98	1.7	10	60/16
F28T8	2	120	50	0.46 A	0.83	1.67	99	1.7	10	60/16
	2	277	50	0.20 A	0.83	1.66	97	1.7	10	60/16

Other compatible lamps: F25T8, F17T8, F32T8/25W

Safety and performance UL Type 1 Outdoor UL Type HL FCC – CLASS A Non-Consumer UL Class P cUL Listed UL Listed RoHS Compliant NEMA Premium

ProLine® T8 Multivolt 120V – 277V

T8 Instant Start Ballasts For F17 (2 ft), F25 (3 ft), F32 (4 ft), F40 (5 ft) Lamps

30192 – GE-332-MV-N

ProLine® T8 Multivolt 120V – 277V

3 or 2 – F32T8 120 to 277 “N” .87 BF Multivolt ProLine®

General characteristics	
Ballast Type	Electronic – Multivolt Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
30192	30270	97710	

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (*F/*C)
F32T8	3	120	81	0.73 A	0.87	1.06	99.0	1.7	10	0/-18
	3	277	80	0.32 A	0.87	1.08	98.3	1.7	10	0/-18
	2	120	62	0.56 A	0.96	1.54	99.0	1.7	10	0/-18
	2	277	62	0.26 A	0.96	1.55	97.8	1.7	10	0/-18
	3	120	75	0.68 A	0.83	1.10	99.0	1.7	10	60/16
	3	277	74	0.30 A	0.83	1.11	98.1	1.7	10	60/16
F32T8/WM	2	120	58	0.52 A	0.92	1.59	99.0	1.7	10	60/16
	2	277	57	0.23 A	0.92	1.60	97.6	1.7	10	60/16
	2	120	75	0.67 A			99.0	1.7	10	0/-18
F40T8	2	277	73	0.29 A			98.1	1.7	13	0/-18
	3	120	67	0.60 A	0.80	1.19	99.0	1.7	10	60/16
	3	277	67	0.26 A	0.80	1.20	97.9	1.7	10	60/16
F28T8	2	120	52	0.46 A	0.87	1.68	99.0	1.7	10	60/16
	2	277	51	0.29 A	0.87	1.71	97.4	1.7	10	60/16

Other compatible lamps: F25T8, F17T8, F32T8/25W

Safety and performance UL Type 1 Outdoor UL Type HL FCC – CLASS A Non-Consumer UL Class P cUL Listed UL Listed RoHS Compliant NEMA Premium

30219 – GE-432-MV-H

ProLine® T8 Multivolt 120V – 277V

4 or 3 – F32T8 120 to 277 “H” 1.15 BF Multivolt ProLine®

General characteristics	
Ballast Type	Electronic – Multivolt Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	High
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
30219	30303		

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (*F/*C)
F40T8	3	120	145	1.30 A			99	1.7	8	0/-18
	3	277	141	0.57 A			98	1.7	15	0/-18
	4	120	144	1.35 A	1.15	0.79	99	1.7	10	0/-18
	4	277	140	0.57 A	1.15	0.82	98	1.7	10	0/-18
	3	120	122	1.13 A	1.24	1.01	99	1.7	10	0/-18
	3	277	120	0.49 A	1.24	1.03	98	1.7	10	0/-18
F32T8	4	120	135	1.25 A	1.11	0.82	99	1.7	10	60/16
	4	277	133	0.54 A	1.11	0.83	98	1.7	10	60/16
	3	120	112	1.00 A	1.20	1.07	99	1.7	10	60/16
F32T8/WM	3	277	110	0.45 A	1.20	1.09	97	1.7	10	60/16
	4	120	122	1.13 A	1.08	0.88	99	1.7	10	60/16
	4	277	120	0.48 A	1.08	0.90	98	1.7	10	60/16
F28T8	3	120	102	0.94 A	1.17	1.14	99	1.7	10	60/16
	3	277	101	0.41 A	1.17	1.15	97	1.7	10	60/16

Other compatible lamps: F25T8, F17T8, F32T8/25W

Safety and performance UL Type 1 Outdoor UL Type HL FCC – CLASS A Non-Consumer UL Class P cUL Listed UL Listed RoHS Compliant NEMA Premium

- High-performance electronic ballast for all general fluorescent applications
- Instant start electronic ballast for long lamp starting cycles and low initial cost
- Multi-voltage technology handles voltage from 120 to 277V
- Lightweight, low-profile housing
- Parallel lamp operation means system maintenance is easier to manage

Dimensions	
Wiring diagram – LFL 1C – see example on page 72	
Case dimensions – Ref Drawing -A – see page 75	
Length (L)	9.5 in (241.30 mm)
Width (W)	1.7 in (43.18 mm)
Height (H)	1.18 in (30.00 mm)
Mounting dimensions	
Mount Length (M)	8.8 in (225.80 mm)
Mount Width (X or F)	1.1 in (28.70 mm)
Mount Slots (MS)	0.3 in (7.92 mm)
Weight	1.40 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	18 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
Red	Length (± 1 in) 48 in (1219 mm)
White	22 in (559 mm)
Blue	30 in (762 mm)
Black	22 in (559 mm)

- High-performance electronic ballast for all general fluorescent applications
- Instant start electronic ballast for long lamp starting cycles and low initial cost
- Multi-voltage technology handles voltage from 120 to 277V
- Lightweight, low-profile housing
- Parallel lamp operation means system maintenance is easier to manage

Dimensions	
Wiring diagram – LFL 1C – see example on page 72	
Case dimensions – Ref Drawing -A – see page 75	
Length (L)	9.5 in (241.30 mm)
Width (W)	1.7 in (43.18 mm)
Height (H)	1.18 in (30.00 mm)
Mounting dimensions	
Mount Length (M)	8.8 in (225.80 mm)
Mount Width (X or F)	1.1 in (28.70 mm)
Mount Slots (MS)	0.3 in (7.92 mm)
Weight	1.40 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	18 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
Red	Length (± 1 in) 48 in (1219 mm)
White	22 in (559 mm)
Blue	30 in (762 mm)
Black	22 in (559 mm)

ProLine® T8 Multivolt 120V – 277V

T8 Instant Start Ballasts For F17 (2 ft), F25 (3 ft), F32 (4 ft), F40 (5 ft) Lamps

30262 – GE-432-MV-L

ProLine® T8 Multivolt 120V – 277V

4 or 3 – F32T8 120 to 277 “L” .77 BF Multivolt ProLine®

General characteristics	
Ballast Type	Electronic – Multivolt Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Low
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
30262	30310		

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (°F/°C)
F40T8	3	120	102	0.94 A			99	1.7	10	0 / -18
	3	277	100	0.41 A			97	1.7	15	0 / -18
	4	120	100	0.95 A	0.80	0.80	99	1.7	10	0 / -18
F32T8	4	277	98	0.41 A	0.80	0.81	98	1.7	10	0 / -18
	3	120	87	0.80 A	0.87	1.00	99	1.7	10	0 / -18
	3	277	86	0.35 A	0.87	1.01	97	1.7	10	0 / -18
F32T8/WM	4	120	95	0.84 A	0.76	0.80	99	1.7	10	60 / 16
	4	277	93	0.36 A	0.76	0.81	98	1.7	10	60 / 16
	3	120	79	0.73 A	0.83	1.05	99	1.7	10	60 / 16
F28T8	3	277	78	0.32 A	0.83	1.06	97	1.7	10	60 / 16
	4	120	86	0.77 A	0.73	0.84	99	1.7	10	60 / 16
	4	277	85	0.33 A	0.73	0.85	97	1.7	10	60 / 16
F28T8/WMP	3	120	73	0.67 A	0.79	1.08	99	1.7	10	60 / 16
	3	277	72	0.29 A	0.79	1.09	97	1.7	10	60 / 16

Other compatible lamps: F25T8, F17T8, F32T8/25W

Safety and performance FCC – CLASS A Non-Consumer

30193 – GE-432-MV-N

ProLine® T8 Multivolt 120V – 277V

4 or 3 – F32T8 120 to 277 “N” .87 BF Multivolt ProLine®

General characteristics	
Ballast Type	Electronic – Multivolt Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
30193	30271	97711	

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (°F/°C)
F32T8	4	120	113	0.99 A	0.88	0.78	99.0	1.7	10	0 / -18
	4	277	110	0.43 A	0.88	0.79	98.1	1.7	10	0 / -18
	3	120	93	0.83 A	0.93	0.99	99.0	1.7	10	0 / -18
F40T8	3	277	92	0.36 A	0.93	1.01	97.9	1.7	10	0 / -18
	3	120	112	0.99 A	0.99	0.99	99.0	1.7	10	0 / -18
	3	277	110	0.43 A	0.99	0.99	98.1	1.7	14	0 / -18
F32T8/WM	4	120	103	0.90 A	0.83	0.80	99.0	1.7	10	60 / 16
	4	277	103	0.40 A	0.83	0.80	98.0	1.7	10	60 / 16
	3	120	87	0.77 A	0.91	1.04	99.0	1.7	10	60 / 16
F28T8	3	277	86	0.33 A	0.91	1.05	97.8	1.7	10	60 / 16
	4	120	93	0.83 A	0.80	0.85	99.0	1.7	10	60 / 16
	4	277	92	0.36 A	0.80	0.87	97.9	1.7	10	60 / 16
F28T8/WMP	3	120	77	0.68 A	0.85	1.10	99.0	1.7	10	60 / 16
	3	277	77	0.30 A	0.85	1.10	97.6	1.7	10	60 / 16

Other compatible lamps: F25T8, F17T8, F32T8/25W

Safety and performance FCC – CLASS A Non-Consumer

ProLine® T8 Multivolt 120V – 277V

T8 Instant Start Ballasts For 46 – 59W 4 ft – 8 ft Slimline Lamps

30195 – GE-159-MV-N

ProLine® T8 Multivolt 120V – 277V

1 – F96T8 120 to 277 “N” .87 BF Multivolt ProLine®

General characteristics	
Ballast Type	Electronic – Multivolt Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
30195	30274		

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (°F/°C)
F96T8	1	120	60	0.55 A	0.89	1.48	99	1.7	10	0 / -18
	1	277	59	0.22 A	0.89	1.50	96	1.7	18	0 / -18
F96T8/WM	1	120	56	0.51 A	0.85	1.53	99	1.7	10	50 / 10
	1	277	54	0.22 A	0.85	1.57	96	1.7	18	50 / 10
F96T8/WMP	1	120					99	1.7	10	50 / 10
	1	277					96	1.7	18	50 / 10

Safety and performance FCC – CLASS A Non-Consumer

30194 – GE-259-MV-N

ProLine® T8 Multivolt 120V – 277V

2 or 1 – F96T8 120 to 277 “N” .87 BF Multivolt ProLine®

General characteristics	
Ballast Type	Electronic – Multivolt Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
30194	30272	97712	

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (°F/°C)
F96T8	2	120	113	1.01 A	0.88	0.78	99.0	1.7	10	0 / -18
	2	277	110	0.40 A	0.88	0.79	98.1	1.7	10	0 / -18
	1	120	72	0.66 A	0.93	0.99	99.0	1.7	10	0 / -18
F96T8/WM	1	277	72	0.29 A	0.93	1.01	97.9	1.7	10	0 / -18
	2	120	104	0.93 A	0.99	0.99	99.0	1.7	10	50 / 10
	2	277	101	0.42 A	0.99	0.99	98.4	1.7	13	50 / 10
F96T8/WMP	1	120	67	0.63 A	0.85	1.08	99.0	1.7	10	50 / 10
	1	277	66	0.28 A	0.85	1.08	97.0	1.7	17	50 / 10
	2	120								
F96T8/WMP	2	277								
	1	120								
F96T8/WMP	1	277								
	1	120								

Safety and performance FCC – CLASS A Non-Consumer

- High-performance electronic ballast for all general fluorescent applications
- Instant start electronic ballast for long lamp starting cycles and low initial cost
- Multi-voltage technology handles voltage from 120 to 277V
- Lightweight, low-profile housing
- Parallel lamp operation means system maintenance is easier to manage

Dimensions	
Wiring diagram – LFL 1A – see example on page 72	
Case dimensions – Ref Drawing – A – see page 75	
Length (L)	9.5 in (241.30 mm)
Width (W)	1.3 in (33.00 mm)
Height (H)	1.18 in (30.00 mm)

Mounting dimensions	
Mount Length (M)	8.8 in (225.80 mm)
Mount Width (X or F)	0.87 in (22.00 mm)
Mount Slots (MS)	0.3 in (7.92 mm)
Weight	1.06 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	18 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
Red	Length (± 1 in) 66 in (1676 mm)
White	25 in (635 mm)
Black	25 in (635 mm)
Blue	58 in (1473 mm)

- High-performance electronic ballast for all general fluorescent applications
- Instant start electronic ballast for long lamp starting cycles and low initial cost
- Multi-voltage technology handles voltage from 120 to 277V
- Lightweight, low-profile housing
- Parallel lamp operation means system maintenance is easier to manage

Dimensions	
Wiring diagram – LFL 1B – see example on page 72	
Case dimensions – Ref Drawing – A – see page 75	
Length (L)	9.5 in (241.30 mm)
Width (W)	1.7 in (43.18 mm)
Height (H)	1.18 in (30.00 mm)

Mounting dimensions	
Mount Length (M)	8.8 in (225.80 mm)
Mount Width (X or F)	1.1 in (28.70 mm)
Mount Slots (MS)	0.3 in (7.92 mm)
Weight	1.40 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	18 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
Red	Length (± 1 in) 66 in (1676 mm)
White	25 in (635 mm)
Black	25 in (635 mm)
Blue	58 in (1473 mm)

ProLine® T8 Multivolt High Output 120V – 277V

T8 Instant Start Ballasts For 44 – 86W 4 ft – 8 ft HO Lamps

30176 – GE-286-HO-MV-N

ProLine® T8 Multivolt High Output 120V – 277V
2 or 1 – F96T8HO IS 120 to 277 “N” .87 BF

General characteristics	
Ballast Type	Electronic – Multivolt Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
30176	30187		

Specifications by lamp and wattage											
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (°F/°C)	
F96T8/HO	2	120	146	1.30 A	0.80	0.54	99	1.7	10	0/-18	
	2	277	143	0.56 A	0.82	0.57	97	1.7	14	0/-18	
	1	120	92	0.82 A	0.82	0.89	98	1.7	10	0/-18	
	1	277	90	0.36 A	0.82	0.91	96	1.7	19	0/-18	
	2	120	142	1.29 A	1.17	0.82	99	1.7	10	0/-18	
	2	277	139	0.52 A	1.17	0.84	97	1.7	14	0/-18	
F96T8	1	120	87	0.79 A			99	1.7	10	0/-18	
	1	277	86	0.33 A			97	1.7	19	0/-18	
	2	120	136	1.23 A			99	1.7	10	0/-18	
	2	277	134	0.51 A			98	1.7	14	0/-18	
	1	120	86	0.77 A			99	1.7	10	0/-18	
	1	277	86	0.33 A			97	1.7	20	0/-18	
F96T8/WM	2	120	125	1.11 A			99	1.7	10	0/-18	
	2	277	123	0.47 A			98	1.7	15	0/-18	
	1	120	78	0.69 A			99	1.7	10	0/-18	
	1	277	77	0.30 A			96	1.7	21	0/-18	
	2	120	115	1.02 A			99	1.7	10	0/-18	
	2	277	114	0.43 A			97	1.7	16	0/-18	
F72T8HO	1	120	73	0.64 A			99	1.7	10	0/-18	
	1	277	72	0.28 A			95	1.7	22	0/-18	
	2	120	98	0.87 A			99	1.7	10	0/-18	
	2	277	97	0.37 A			97	1.7	17	0/-18	
	1	120	62	0.55 A			99	1.7	11	0/-18	
	1	277	62	0.25 A			94	1.7	23	0/-18	
F40T8	2	120	95	0.84 A			99	1.7	10	0/-18	
	2	277	92	0.35 A			97	1.7	18	0/-18	
	1	277	62	0.24 A			94	1.7	23	0/-18	
	1	120	60	0.53 A			99	1.7	11	0/-18	
	2	120	78	0.72 A			99	1.7	10	0/-18	
	2	277	78	0.30 A			96	1.7	20	0/-18	
F58T8	1	277	50	0.20 A			93	1.7	27	0/-18	
	1	120	49	0.45 A			99	1.7	13	0/-18	
	2	120	78	0.70 A			99	1.7	10	0/-18	
	2	277	77	0.30 A			96	1.7	21	0/-18	
	1	120	51	0.45 A			99	1.7	13	0/-18	
	1	277	51	0.20 A			93	1.7	26	0/-18	

Safety and performance UL Type 1 Outdoor UL Type HL FCC - CLASS A Non-Consumer UL Class P cUL Listed UL Listed RoHS Compliant

ProLine® T8 Instant Start High Performance

T8 Instant Start Ballasts For F17 (2 ft), F25 (3 ft), F32 (4 ft), F40 (5 ft) Lamps

23680 – GE-132-120-N

ProLine® T8 Instant Start High Performance
1 – F32T8 120V “N” .87 BF ProLine®

General characteristics	
Ballast Type	Electronic – Standard Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
23680	24161		

Specifications by lamp and wattage											
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (°F/°C)	
F32T8	1	120	30	0.26 A	0.87	2.90	99	1.7	10	0/-18	
F32T8/WM	1	120	28	0.24 A	0.86	3.07	99	1.7	10	60/16	
F25T12	1	120	25	0.22 A	0.87	3.48	99	1.7	10	0/-18	
F28T8	1	120	25	0.22 A	0.84	3.36	99	1.7	10	60/16	
F25T8	1	120	24	0.21 A	0.87	3.62	99	1.7	10	0/-18	
F17T8	1	120	18	0.16 A	0.91	5.05	99	1.7	10	0/-18	
FE15T8	1	120	15	0.13 A	0.91	6.06	99	1.7	10	0/-18	

Safety and performance UL Type 1 Outdoor UL Type HL FCC - CLASS A Non-Consumer UL Class P cUL Listed UL Listed RoHS Compliant

23681 – GE-132-277-N

ProLine® T8 Instant Start High Performance
1 – F32T8 277V “N” .87 BF ProLine®

General characteristics	
Ballast Type	Electronic – Standard Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
23681	24162		

Specifications by lamp and wattage											
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (°F/°C)	
F32T8	1	277	30	0.12 A	0.87	2.90	99	1.7	10	0/-18	
F32T8/WM	1	277	28	0.11 A	0.86	3.07	99	1.7	10	60/16	
F28T8	1	277	26	0.97 A	0.84	3.23	97	1.7	10	60/16	
F25T12	1	277	25	0.10 A	0.87	3.48	97	1.7	11	0/-18	
F25T8	1	277	25	0.10 A	0.87	3.48	97	1.7	11	0/-18	
F17T8	1	277	18	0.07 A	0.91	5.05	96	1.7	14	0/-18	
FE15T8	1	277	15	0.06 A	0.91	6.06	94	1.7	16	0/-18	

Safety and performance UL Type 1 Outdoor UL Type HL FCC - CLASS A Non-Consumer UL Class P cUL Listed UL Listed RoHS Compliant

ProLine® T8 Instant Start High Performance

T8 Instant Start Ballasts For F17 (2 ft), F25 (3 ft), F32 (4 ft), F40 (5 ft) Lamps

23671 – GE-232-120-N

ProLine® T8 Instant Start High Performance

2 or 1 – F32T8 120V “N” .87 BF ProLine®

General characteristics	
Ballast Type	Electronic – Standard Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
23671	24163		

Specifications by lamp and wattage											
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (≥)	Crest Factor (≤)	THD% (≤)	Min. Starting Temp (°F/°C)	
F32T8	2	120	57	0.49 A	0.87	1.52	99	1.7	10	0/-18	
	1	120	36	0.31 A	0.94	2.61	99	1.7	10	0/-18	
F32T8/WM	2	120	53	0.45 A	0.86	1.62	99	1.7	10	60/16	
	1	120	33	0.29 A	0.94	2.84	99	1.7	10	60/16	
F28T8	2	120	48	0.41 A	0.84	1.75	99	1.7	10	60/16	
	1	120	30	0.26 A	0.91	3.03	99	1.7	10	60/16	
F25T12	2	120	46	0.40 A	0.87	1.89	99	1.7	10	0/-18	
	1	120	30	0.26 A	0.94	3.13	99	1.7	10	0/-18	
F25T8	2	120	45	0.38 A	0.87	1.93	99	1.7	10	0/-18	
	1	120	28	0.25 A	0.97	3.46	99	1.7	10	0/-18	
F40T8	1	120	43	0.37 A	0.91	2.93	99	1.7	10	0/-18	
	2	120	31	0.27 A	0.91	2.93	99	1.7	10	0/-18	
F17T8	1	120	20	0.18 A	0.97	4.85	98	1.7	13	0/-18	
	2	120	25	0.22 A	0.91	3.64	98	1.7	11	0/-18	
FE15T8	1	120	17	0.15 A	0.98	5.76	98	1.7	15	0/-18	

Safety and performance UL Type 1 Outdoor NRCAN UL Type HL FCC – CLASS A Non-Consumer UL Class P cUL Listed UL Listed RoHS Compliant

23672 – GE-232-277-N

ProLine® T8 Instant Start High Performance

2 or 1 – F32T8 277V “N” .87 BF ProLine®

General characteristics	
Ballast Type	Electronic – Standard Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
23672	24164		

Specifications by lamp and wattage											
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (≥)	Crest Factor (≤)	THD% (≤)	Min. Starting Temp (°F/°C)	
F32T8	2	277	57	0.22 A	0.87	1.52	99	1.7	10	0/-18	
	1	277	37	0.14 A	0.94	2.54	99	1.7	10	0/-18	
F32T8/WM	2	277	53	0.20 A	0.86	1.62	99	1.7	10	60/16	
	1	277	34	0.13 A	0.94	2.76	99	1.7	10	60/16	
F28T8	2	277	48	0.18 A	0.84	1.75	99	1.7	10	60/16	
	1	277	31	0.12 A	0.91	2.93	97	1.7	10	60/16	
F25T12	2	277	47	0.18 A	0.87	1.85	98	1.7	10	0/-18	
	1	277	31	0.12 A	0.94	3.03	97	1.7	13	0/-18	
F25T8	2	277	45	0.17 A	0.87	1.93	98	1.7	10	0/-18	
	1	277	29	0.11 A	0.97	3.34	97	1.7	13	0/-18	
F40T8	1	277	44	0.16 A	0.91	2.84	98	1.7	12	0/-18	
	2	277	32	0.12 A	0.91	2.84	98	1.7	12	0/-18	
F17T8	1	277	22	0.08 A	0.97	4.40	96	1.7	16	0/-18	
	2	277	26	0.10 A	0.91	3.50	97	1.7	14	0/-18	
FE15T8	1	277	18	0.07 A	0.98	5.44	95	1.7	17	0/-18	

Safety and performance UL Type 1 Outdoor NRCAN UL Type HL FCC – CLASS A Non-Consumer UL Class P cUL Listed UL Listed RoHS Compliant

ProLine® T8 Instant Start High Performance

T8 Instant Start Ballasts For F17 (2 ft), F25 (3 ft), F32 (4 ft), F40 (5 ft) Lamps

23673 – GE-332-120-N

ProLine® T8 Instant Start High Performance

3 or 2 – F32T8 120V “N” .87 BF ProLine®

General characteristics	
Ballast Type	Electronic – Standard Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
23673	24165		

Specifications by lamp and wattage											
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (≥)	Crest Factor (≤)	THD% (≤)	Min. Starting Temp (°F/°C)	
F32T8	3	120	85	0.73 A	0.87	1.02	99	1.7	10	0/-18	
	2	120	65	0.56 A	0.94	1.44	99	1.7	10	0/-18	
F32T8/WM	3	120	79	0.68 A	0.86	1.08	99	1.7	10	60/16	
	2	120	60	0.51 A	0.94	1.56	99	1.7	10	60/16	
F40T8	2	120	78	0.67 A	0.84	1.16	99	1.7	10	0/-18	
	3	120	72	0.62 A	0.84	1.16	99	1.7	10	60/16	
F28T8	2	120	54	0.47 A	0.91	1.68	99	1.7	10	60/16	
	3	120	69	0.60 A	0.87	1.26	99	1.7	10	0/-18	
F25T12	2	120	54	0.46 A	0.94	1.74	99	1.7	10	0/-18	
	3	120	67	0.58 A	0.87	1.29	99	1.7	10	0/-18	
F25T8	2	120	51	0.44 A	0.97	1.90	99	1.7	10	0/-18	
	3	120	47	0.41 A	0.91	1.93	99	1.7	10	0/-18	
F17T8	2	120	30	0.31 A	0.97	3.23	99	1.7	12	0/-18	
	2	120	30	0.26 A	0.98	3.26	98	1.7	13	0/-18	

Safety and performance UL Type 1 Outdoor UL Type HL FCC – CLASS A Non-Consumer UL Class P cUL Listed UL Listed RoHS Compliant

23674 – GE-332-277-N

ProLine® T8 Instant Start High Performance

3 or 2 – F32T8 277V “N” .87 BF ProLine®

General characteristics	
Ballast Type	Electronic – Standard Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
23674	24166		

Specifications by lamp and wattage											
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (≥)	Crest Factor (≤)	THD% (≤)	Min. Starting Temp (°F/°C)	
F32T8	3	277	84	0.31 A	0.87	1.03	99	1.7	10	0/-18	
	2	277	64	0.24 A	0.94	1.46	99	1.7	10	0/-18	
F32T8/WM	3	277	78	0.29 A	0.86	1.10	99	1.7	10	60/16	
	2	277	59	0.22 A	0.94	1.59	99	1.7	10	60/16	
F40T8	2	277	77	0.29 A	0.84	1.20	99	1.7	10	0/-18	
	3	277	70	0.26 A	0.84	1.20	99	1.7	10	60/16	
F28T8	2	277	53	0.20 A	0.91	1.71	98	1.7	10	60/16	
	3	277	68	0.25 A	0.87	1.27	99	1.7	10	0/-18	
F25T12	2	277	53	0.20 A	0.94	1.77	98	1.7	11	0/-18	
	3	277	65	0.24 A	0.87	1.33	99	1.7	10	0/-18	
F25T8	2	277	50	0.19 A	0.97	1.94	98	1.7	12	0/-18	
	3	277	46	0.17 A	0.91	1.97	98	1.7	12	0/-18	
F17T8	2	277	36	0.13 A	0.97	2.69	97	1.7	15	0/-18	
	3	277	36	0.14 A	0.91	2.52	98	1.7	15	0/-18	
FE15T8	2	277	28	0.11 A	0.98	3.50	97	1.7	16	0/-18	

Safety and performance UL Type 1 Outdoor UL Type HL FCC – CLASS A Non-Consumer UL Class P cUL Listed UL Listed RoHS Compliant

ProLine® T8 Instant Start High Performance

T8 Instant Start Ballasts For F17 (2 ft), F25 (3 ft), F32 (4 ft), F40 (5 ft) Lamps

23675 – GE-432-120-N

ProLine® T8 Instant Start High Performance

4 or 3 – F32T8 120V "N" .87 BF ProLine®

General characteristics	
Ballast Type	Electronic – Standard Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
23675	24167		

Specifications by lamp and wattage

Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (≥)	Crest Factor (≤)	THD% (≤)	Min. Starting Temp (°F/°C)
F32T8	4	120	113	0.97 A	0.87	0.76	0.87	1.7	10	0/-18
	3	120	93	0.80 A	0.94	1.01	0.94	1.7	10	0/-18
F40T8	3	120	113	0.97 A				1.7	10	0/-18
	4	120	105	0.90 A	0.86	0.81	0.86	1.7	10	60/16
F32T8/WM	3	120	86	0.74 A	0.94	1.09	0.94	1.7	10	60/16
	4	120	96	0.81 A	0.84	0.87	0.84	1.7	10	60/16
F28T8	3	120	77	0.66 A	0.91	1.18	0.91	1.7	10	60/16
	4	120	91	0.78 A	0.87	0.95	0.87	1.7	10	0/-18
F25T12	3	120	75	0.65 A	0.94	1.25	0.94	1.7	10	0/-18
	4	120	87	0.74 A	0.87	1.00	0.87	1.7	10	0/-18
F25T8	3	120	72	0.62 A	0.97	1.34	0.97	1.7	10	0/-18
	4	120	60	0.52 A	0.91	1.51	0.91	1.7	10	0/-18
F17T8	3	120	50	0.43 A	0.97	1.94	0.97	1.7	11	0/-18
	4	120	48	0.42 A	0.91	1.89	0.91	1.7	12	0/-18
FE15T8	3	120	40	0.35 A	0.98	2.45	0.98	1.7	14	0/-18

Safety and performance UL Type 1 Outdoor UL Type HL FCC – CLASS A Non-Consumer UL Class P cUL Listed UL Listed RoHS Compliant

23676 – GE-432-277-N

ProLine® T8 Instant Start High Performance

4 or 3 – F32T8 277V "N" .87 BF ProLine®

General characteristics	
Ballast Type	Electronic – Standard Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
23676	24168		

Specifications by lamp and wattage

Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (≥)	Crest Factor (≤)	THD% (≤)	Min. Starting Temp (°F/°C)
F40T8	3	277	111	0.41 A				1.7	10	0/-18
	4	277	110	0.41 A	0.87	0.79	0.87	1.7	10	0/-18
F32T8	3	277	92	0.34 A	0.94	1.02	0.94	1.7	10	0/-18
	4	277	102	0.38 A	0.86	0.84	0.86	1.7	10	60/16
F32T8/WM	3	277	84	0.32 A	0.94	1.11	0.94	1.7	10	60/16
	4	277	93	0.35 A	0.84	0.90	0.84	1.7	10	60/16
F28T8	3	277	75	0.29 A	0.91	1.21	0.91	1.7	10	60/16
	4	277	89	0.33 A	0.87	0.97	0.87	1.7	10	0/-18
F25T12	3	277	75	0.28 A	0.94	1.25	0.94	1.7	10	0/-18
	4	277	85	0.32 A	0.87	1.02	0.87	1.7	10	0/-18
F25T8	3	277	70	0.26 A	0.97	1.38	0.97	1.7	10	0/-18
	4	277	59	0.22 A	0.91	1.54	0.91	1.7	12	0/-18
F17T8	3	277	49	0.19 A	0.97	1.97	0.97	1.7	13	0/-18
	4	277	47	0.18 A	0.91	1.93	0.91	1.7	14	0/-18
FE15T8	3	277	39	0.15 A	0.98	2.51	0.98	1.7	15	0/-18

Safety and performance UL Type 1 Outdoor UL Type HL FCC – CLASS A Non-Consumer UL Class P cUL Listed UL Listed RoHS Compliant

ProLine® T8 Instant Start High Performance

T8 Instant Start Ballasts For 46 – 59W 4 ft – 8 ft Slimline Lamps

23677 – GE-259-120-N

ProLine® T8 Instant Start High Performance

2 or 1 – F96T8 120V Normal Light .87 BF ProLine®

General characteristics	
Ballast Type	Electronic – Standard Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
23677	24169		

Specifications by lamp and wattage

Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (≥)	Crest Factor (≤)	THD% (≤)	Min. Starting Temp (°F/°C)
F96T8	2	120	112	0.96 A	0.87	0.77	99	1.7	10	0/-18
	1	120	71	0.61 A	1.04	1.46	99	1.7	10	0/-18
F96T8/WM	2	120	104	0.89 A	0.87	0.83	99	1.7	10	0/-18
	1	120	65	0.56 A	1.04	1.60	99	1.7	10	0/-18
F96T8/WMP	1	120					99	1.7	10	0/-18
	2	120					99	1.7	10	0/-18

Safety and performance UL Type 1 Outdoor UL Type HL FCC – CLASS A Non-Consumer UL Class P cUL Listed UL Listed RoHS Compliant

23678 – GE-259-277-N

ProLine® T8 Instant Start High Performance

2 or 1 – F96T8 277V "N" .87 BF ProLine®

General characteristics	
Ballast Type	Electronic – Standard Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
23678	24170		

Specifications by lamp and wattage

Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (≥)	Crest Factor (≤)	THD% (≤)	Min. Starting Temp (°F/°C)
F96T8	2	277	110	0.41 A	0.87	0.79	99	1.7	10	0/-18
	1	277	71	0.27 A	1.04	1.46	99	1.7	13	0/-18
F96T8/WM	2	277	102	0.38 A	0.87	0.85	99	1.7	10	0/-18
	1	277	66	0.25 A	1.04	1.57	98	1.7	13	0/-18
F96T8/WMP	1	277					98	1.7	13	0/-18
	2	277					99	1.7	10	0/-18

Safety and performance UL Type 1 Outdoor UL Type HL FCC – CLASS A Non-Consumer UL Class P cUL Listed UL Listed RoHS Compliant

- High-performance electronic ballast for all general fluorescent applications
- Instant start electronic ballast for long lamp starting cycles and low initial cost
- Lightweight, low-profile housing
- < 10% THD, > 99% power factor
- Parallel lamp operation means system maintenance is easier to manage

Dimensions	
Wiring diagram – LFL 1D – see example on page 72	
Case dimensions – Ref Drawing – A – see page 75	
Length (L)	9.5 in (241.30 mm)
Width (W)	1.7 in (43.18 mm)
Height (H)	1.18 in (30.00 mm)
Mounting dimensions	
Mount Length (M)	8.8 in (225.80 mm)
Mount Width (X or F)	1.1 in (28.70 mm)
Mount Slots (MS)	0.3 in (7.92 mm)
Weight	1.40 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	18 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
White and Black	24 in (610 mm)
Yellow	45 in (1143 mm)
Red	32 in (813 mm)
Blue	32 in (813 mm)

- High-performance electronic ballast for all general fluorescent applications
- Instant start electronic ballast for long lamp starting cycles and low initial cost
- Lightweight, low-profile housing
- < 10% THD, > 99% power factor
- Parallel lamp operation means system maintenance is easier to manage

Dimensions	
Wiring diagram – LFL 1B – see example on page 72	
Case dimensions – Ref Drawing – A – see page 75	
Length (L)	9.5 in (241.30 mm)
Width (W)	1.7 in (43.18 mm)
Height (H)	1.18 in (30.00 mm)
Mounting dimensions	
Mount Length (M)	8.8 in (225.80 mm)
Mount Width (X or F)	1.1 in (28.70 mm)
Mount Slots (MS)	0.3 in (7.92 mm)
Weight	1.40 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	18 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
Black	25 in (635 mm)
Red	66 in (1676 mm)
White	25 in (635 mm)
Blue	58 in (1473 mm)

Residential Grade ProLine® T8 120V

T8 Instant Start Ballasts For F17 (2 ft), F25 (3 ft), F32 (4 ft) Lamps

97782 – GE232-120-RES

Residential Grade ProLine® T8 120V

2 or 1 – F32T8 120V “N” .87 BF Residential ProLine®

General characteristics	
Ballast Type	Electronic – Standard Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	104°F (40°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz
Supply Current Frequency (MIN)	50 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
97782		70137	

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (*F/°C)
F32T8	2	120	53	0.81 A	0.83	1.56	5	1.7	145	0 / -18
	1	120	32	0.55 A	0.99	3.09	48	1.7	170	0 / -18
F32T8/WM	2	120	51	0.79 A	0.82	1.60	5	1.7	146	60 / 16
	1	120	32	0.54 A	0.99	3.09	48	1.7	170	60 / 16
F28T8	2	120	46	0.72 A	0.81	1.76	5	1.7	152	60 / 16
	1	120	29	0.50 A	0.97	3.34	48	1.7	177	60 / 16
F25T8	2	120	43	0.69 A	0.88	2.04	5	1.7	155	0 / -18
	1	120	28	0.48 A	1.04	3.71	48	1.7	178	0 / -18
F17T8	2	120	31	0.52 A	0.88	2.83	49	1.7	172	0 / -18
	1	120	20	0.37 A	1.03	5.15	45	1.7	195	0 / -18

Other compatible lamps: F32T8/25W

Safety and performance UL Type 1 Outdoor UL Type HL ANSI – C62.41 UL Class P FCC Part 18 Class B at 120 Volts cUL Listed

97783 – GE432-120-RES

Residential Grade ProLine® T8 120V

4 or 3 – F32T8 120V “N” .87 BF Residential ProLine®

General characteristics	
Ballast Type	Electronic – Standard Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	104°F (40°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	
Sound Rating	A (20-24 decibels)
Additional Info	Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz
Supply Current Frequency (MIN)	50 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
97783		70138	

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (*F/°C)
F32T8	4	120	105	1.62 A	0.83	0.79	5	1.7	147	0 / -18
	3	120	86	1.38 A	0.88	1.02	5	1.7	157	0 / -18
F32T8/WM	4	120	98	1.50 A	0.81	0.82	5	1.7	150	60 / 16
	3	120	81	1.29 A	0.88	1.08	5	1.7	159	60 / 16
F28T8	4	120	90	1.42 A	0.79	0.87	5	1.7	155	60 / 16
	3	120	75	1.23 A	0.87	1.16	5	0.19	165	60 / 16
F25T8	4	120	83	1.31 A	0.87	1.04	5	1.7	158	0 / -18
	3	120	68	1.13 A	0.94	1.38	5	1.7	167	0 / -18
F17T8	4	120	58	0.98 A	0.86	1.48	48	1.7	175	0 / -18
	3	120	48	0.84 A	0.93	1.93	44	1.7	185	0 / -18

Safety and performance UL Type 1 Outdoor RoHS Compliant UL Type HL ANSI – C62.41 FCC Part 18 Class B at 120 Volts UL Class P cUL Listed UL Listed

Electromagnetic T8 Ballasts

T8 Instant Start Ballasts For F17 (2 ft), F25 (3 ft), F32 (4 ft) Lamps

87125 – GEM232T8RS120

Electromagnetic T8 Ballasts

2 – F32T8, RS, 120V, Magnetic Ballast (M232SR120C)

General characteristics	
Ballast Type	Magnetic – Rapid Start
Starting Method	Rapid start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	5%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
87125			87125

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (*F/°C)
F32T8	2	120	32	0.60 A	0.94	2.93	98	1.7	18	50 / 10

Safety and performance UL Type 1 Outdoor UL Type HL CSA UL Class P UL Listed

87130 – GEM232T8RS277

Electromagnetic T8 Ballasts

2 – F32T8, RS, 277V, Magnetic Ballast (M232SR277C)

General characteristics	
Ballast Type	Magnetic – Rapid Start
Starting Method	Rapid start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	5%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
87130			87130

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (*F/°C)
F32T8	2	277	77	0.28 A	0.98	1.27	98	1.7	20	50 / 10
F25T8	2	277	60	0.22 A	1.00	1.66	98	1.7	20	50 / 10
F17T8	2	277	47	0.18 A	1.09	2.31	96	1.7	25	50 / 10

Safety and performance UL Type 1 Outdoor UL Type HL UL Class P UL Listed

- Magnetic ballast construction for all general fluorescent lighting
- Extends lamp life in frequently switched applications
- Color coded ballast and package labels reduce misapplication errors (120V Yellow, 277V Red)
- Great for areas requiring no EMI/RFI noise

Dimensions	
Wiring diagram – LFL PS2 – see example on page 73	
Case dimensions – Ref Drawing ST – see page 75	
Length (L)	9.5 in (241.30 mm)
Width (W)	2.4 in (60.45 mm)
Height (H)	1.6 in (39.37 mm)
Mounting dimensions	
Mount Length (M)	8.9 in (225.80 mm)
Mount Width (X or F)	1.7 in (42.92 mm)
Mount Slots (MS)	0.3 in (7.92 mm)
Weight	2.60 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	10 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
Blue and Red	Length (± 1 in) 26 in (660 mm)
White and Black	20 in (508 mm)
Yellow	36 in (914 mm)

- Magnetic ballast construction for all general fluorescent lighting
- Extends lamp life in frequently switched applications
- Color coded ballast and package labels reduce misapplication errors (120V Yellow, 277V Red)
- Great for areas requiring no EMI/RFI noise

Dimensions	
Wiring diagram – LFL PS2 – see example on page 73	
Case dimensions – Ref Drawing ST – see page 75	
Length (L)	9.5 in (241.30 mm)
Width (W)	2.4 in (60.45 mm)
Height (H)	1.6 in (39.37 mm)
Mounting dimensions	
Mount Length (M)	8.9 in (225.80 mm)
Mount Width (X or F)	1.7 in (42.92 mm)
Mount Slots (MS)	0.3 in (7.92 mm)
Weight	2.60 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	10 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
Blue and Red	Length (± 1 in) 26 in (660 mm)
White and Black	20 in (508 mm)
Yellow	36 in (914 mm)

UltraStart® T8 Programmed Start

T8 Programmed Start Ballasts For F17 (2 ft), F25 (3 ft), F32 (4 ft) Lamps

29621 – GE-232-120-PS-N

UltraStart® T8 Programmed Start

2 – F32T8 120V Normal Light .87 BF <10% THD UltraStart®

General characteristics	
Ballast Type	Electronic – Programmed / Rapid Start
Starting Method	Programmed start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
29621	29630		

Specifications by lamp and wattage											
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (°F/°C)	
F32T8	2	120	57	0.49 A	0.89	1.56	99	1.7	10	0 / -18	
	1	120	35	0.29 A	1.03	2.94	99	1.7	10	0 / -18	
F32T8/WM	2	120	54	0.46 A	0.88	1.62	99	1.7	10	60 / 16	
	1	120	33	0.28 A	1.02	3.09	99	1.7	10	60 / 16	
F28T8	2	120	49	0.42 A	0.85	1.73	99	1.7	10	60 / 16	
	1	120	30	0.26 A	0.97	3.23	99	1.7	10	60 / 16	
F25T8	2	120	45	0.39 A	0.89	1.97	99	1.7	10	0 / -18	
	1	120	28	0.24 A	1.04	3.71	98	1.7	10	0 / -18	
F17T8	2	120	32	0.28 A	0.89	2.78	99	1.7	10	0 / -18	
	1	120	20	0.17 A	1.02	5.10	98	1.7	10	0 / -18	

Other compatible lamps: F32T8/25W

Safety and performance RoHS Compliant  UL Type 1 Outdoor  UL Type HL  NRCAN FCC – CLASS A Non-Consumer ANSI – C62.41  UL Class P cUL Listed  UL Listed  NEMA Premium

29622 – GE-232-277-PS-N

UltraStart® T8 Programmed Start

2 – F32T8 277V Normal Light .87 BF <10% THD UltraStart®







General characteristics	
Ballast Type	Electronic – Programmed / Rapid Start
Starting Method	Programmed start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/ 60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
29622	29632		

Specifications by lamp and wattage											
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (°F/°C)	
F32T8	2	277	57	0.21 A	0.89	1.56	97	1.7	10	0 / -18	
	1	277	36	0.14 A	1.03	2.86	95	1.7	10	0 / -18	
F32T8/WM	2	277	54	0.21 A	0.88	1.62	97	1.7	10	60 / 16	
	1	277	34	0.13 A	1.01	2.97	94	1.7	10	60 / 16	
F28T8	2	277	49	0.19 A	0.86	1.75	97	1.7	10	60 / 16	
	1	277	31	0.12 A	0.98	3.16	94	1.7	10	60 / 16	
F25T8	2	277	46	0.18 A	0.90	1.95	96	1.7	10	0 / -18	
	1	277	28	0.11 A	1.03	3.67	93	1.7	13	0 / -18	
F17T8	2	277	32	0.12 A	0.90	2.81	93	1.7	10	0 / -18	
	1	277	21	0.08 A	1.02	4.85	88	1.7	15	0 / -18	

Other compatible lamps: F32T8/25W

Safety and performance RoHS Compliant  UL Type 1 Outdoor ANSI – C62.41  UL Type HL FCC – CLASS A Non-Consumer  NRCAN  UL Class P cUL Listed  UL Listed  NEMA Premium

UltraStart® T8 Programmed Start

T8 Programmed Start Ballasts For F17 (2 ft), F25 (3 ft), F32 (4 ft) Lamps

96714 – GE232-MVPS-N

UltraStart® T8 Programmed Start

2 or 1 – F32T8 120V-277V Normal Light .88 BF <10% THD UltraStart®

General characteristics	
Ballast Type	Electronic – Programmed / Rapid Start
Starting Method	Programmed start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	104°F (40°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Anti-striation control, Thermally protected, Universal voltage

Electrical characteristics	
Supply Current Frequency	50 Hz/Supply Current Frequency (MIN)/ 50 Hz/ 60 (MIN)
Supply Current Frequency (MIN)	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
96714	96717		

Specifications by lamp and wattage											
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (°F/°C)	
F32T8	2	120	59	0.48 A	0.89	1.50	99	1.7	10	0 / -18	
	2	277	58	0.21 A	0.89	1.53	96	1.7	10	0 / -18	
F32T8	1	120	37	0.30 A	1.05	2.83	98	1.7	10	0 / -18	
	1	277	37	0.14 A	1.05	2.83	93	1.7	10	0 / -18	
F32T8	2	120	55	0.45 A	0.88	1.60	99	1.7	10	50 / 10	
	2	277	54	0.20 A	0.88	1.62	96	1.7	10	50 / 10	
F32T8/WM	1	120	34	0.28 A	1.02	3.00	98	1.7	10	50 / 10	
	1	277	34	0.13 A	1.02	3.00	93	1.7	10	50 / 10	
F32T8	2	120	51	0.42 A	0.86	1.68	99	1.7	10	50 / 10	
	2	277	50	0.18 A	0.86	1.72	95	1.7	10	50 / 10	
F28T8	1	120	32	0.26 A	1.00	3.12	98	1.7	10	50 / 10	
	1	277	32	0.12 A	1.00	3.12	92	1.7	10	50 / 10	

Other compatible lamps: F17T8, F25T8, F32T8/25W

Safety and performance  UL Type 1 Outdoor  UL Type HL FCC – CLASS A Non-Consumer  UL Class P ANSI – C62.41 RoHS Compliant cUL Listed  UL Listed  NEMA Premium

96720 – GE232-MVPS-L

UltraStart® T8 Programmed Start

2 or 1 – F32T8 120V-277V Low Watts .71 BF <10% THD UltraStart®






General characteristics	
Ballast Type	Electronic – Programmed / Rapid Start
Starting Method	Programmed start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	104°F (40°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Low
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Anti-striation control, Thermally protected, Universal voltage

Electrical characteristics	
Supply Current Frequency (MIN)	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
96720			

Specifications by lamp and wattage											
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (°F/°C)	
F32T8	2	120	47	0.39 A	0.71	1.51	99	1.7	10	0 / -18	
	2	277	47	0.17 A	0.71	1.51	95	1.7	10	0 / -18	
F32T8	1	120	30	0.28 A	0.81	2.70	98	1.7	10	0 / -18	
	1	277	30	0.11 A	0.81	2.70	90	1.7	10	0 / -18	
F32T8	2	120	44	0.36 A	0.67	1.52	99	1.7	10	60 / 16	
	2	277	44	0.16 A	0.67	1.52	95	1.7	10	60 / 16	
F32T8/WM	1	120	28	0.26 A	0.79	2.82	98	1.7	10	60 / 16	
	1	277	28	0.11 A	0.79	2.82	90	1.7	10	60 / 16	
F28T8	2	120	41	0.34 A	0.65	1.58	99	1.7	10	60 / 16	
	2	277	41	0.15 A	0.65	1.58	94	1.7	10	60 / 16	
F28T8	1	120	26	0.24 A	0.77	2.96	98	1.7	10	60 / 16	
	1	277	26	0.10 A	0.77	2.96	90	1.7	10	60 / 16	
F25T8	2	277	38	0.14 A	0.73	1.92	94	1.7	16	0 / -18	
	2	120	37	0.31 A	0.73	1.97	99	1.7	10	0 / -18	
F17T8	1	277	25	0.09 A	0.86	3.44	85	1.7	16	0 / -18	
	1	120	24	0.23 A	0.86	3.58	97	1.7	10	0 / -18	

Other compatible lamps: F17T8, F32T8/25W

Safety and performance  UL Type 1 Outdoor  UL Type HL FCC – CLASS A Non-Consumer ANSI – C62.41 RoHS Compliant  UL Class P cUL Listed  UL Listed  NEMA Premium

UltraStart® T8 Programmed Start

T8 Programmed Start Ballasts For F17 (2 ft), F25 (3 ft), F32 (4 ft) Lamps

29675 – GE-232-MVPS-H

UltraStart® T8 Programmed Start

2 – F32T8 120V-277V High Light 1.15 BF <10% THD UltraStart®

General characteristics	
Ballast Type	Electronic – Programmed / Rapid Start
Starting Method	Programmed start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	High
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
29675	29651		

Specifications by lamp and wattage

Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (*F/°C)
F32T8	2	120	75	0.64 A	1.15	1.53	98	1.7	10	0 / -18
	2	277	74	0.28 A	1.15	1.55	94	1.7	10	0 / -18
	1	277	47	0.19 A	1.37	2.91	90	1.7	10	0 / -18
	1	120	46	0.40 A	1.37	2.97	98	1.7	10	0 / -18
	2	120	69	0.60 A	1.34	1.65	98	1.7	10	60 / 16
	2	277	69	0.27 A	1.14	1.65	95	1.7	10	60 / 16
F32T8/WM	1	120	43	0.36 A			98	1.7	10	60 / 16
	1	277	43	0.18 A	1.34	3.11	90	1.7	10	60 / 16
	2	120	63	0.54 A	1.10	1.74	94	1.7	10	60 / 16
	2	277	62	0.25 A	1.11	1.79	98	1.7	10	60 / 16
	1	277	39	0.16 A	1.29	3.30	89	1.7	10	60 / 16
	1	120	38	0.32 A			98	1.7	10	60 / 16
F28T8	2	120	59	0.50 A	1.14	1.93	98	1.7	10	0 / -18
	2	277	59	0.24 A	1.14	1.93	93	1.7	16	0 / -18
	1	120	37	0.32 A	1.34	3.62	98	1.7	10	0 / -18
	1	277	37	0.15 A	1.34	3.62	87	1.7	21	0 / -18

Other compatible lamps: F17T8, F32T8/25W

Safety and performance

29671 – GE-232-MVPS-XL

UltraStart® T8 Programmed Start

2 – F32T8 120V-277V Ultra Low Watt .60 BF <10% THD

General characteristics	
Ballast Type	Electronic – Programmed / Rapid Start
Starting Method	Programmed start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Ultra low
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/ 60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
29671	29665		

Specifications by lamp and wattage

Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (*F/°C)
F32T8	2	120	45	0.39 A	0.60	1.33	98.0	1.7	10	0 / -18
	2	277	44	0.19 A	0.60	1.36	90.0	1.7	10	0 / -18
	1	277	28	0.12 A	0.70	2.50	83.0	1.7	10	0 / -18
	1	120	27	0.24 A	0.70	2.59	98.0	1.7	10	0 / -18
	2	120	42	0.15 A	0.59	1.40	99.0	1.7	10	60 / 16
	2	277	42	0.24 A	0.59	1.40	87.0	1.7	10	60 / 16
F32T8/WM	1	120	27	0.22 A	0.68	2.51	81.0	1.7	10	60 / 16
	2	120	39	0.12 A	0.59	1.51	99.0	1.7	10	60 / 16
	2	277	39	0.15 A	0.59	1.51	86.0	1.7	10	60 / 16
	1	277	25	0.12 A	0.67	2.68	79.0	1.7	10	60 / 16
	1	120	24	0.20 A			98.0	1.7	10	60 / 16
	2	120	36	0.31 A	0.61	1.69	98.0	1.7	10	0 / -18
F28T8	2	277	36	0.15 A	0.61	1.69	87.0	1.7	15	0 / -18
	1	277	23	0.10 A			79.0	1.7	10	0 / -18
	1	277	23	0.10 A	0.68	2.95	79.0	1.7	16	0 / -18
	1	120	22	0.20 A	0.68	3.09	98.0	1.7	10	0 / -18

Other compatible lamps: F17T8, F32T8/25W

Safety and performance

See page 195 for warranty information.

- A new generation of ultra-efficient Programmed Start ballasts (> 90% efficiency)
- Extends lamp life in frequently switched applications (> 100,000 on/off cycles)
- Starting time visually the same as instant start
- Multi-voltage technology handles voltage from 120 to 277V (H and XL series)
- Parallel lamp operation means system maintenance is easier to manage

Dimensions	
Wiring diagram – LFL PS2 – see example on page 73	
Case dimensions – Ref Drawing – A – see page 75	
Length (L)	9.5 in (241.30 mm)
Width (W)	1.7 in (43.18 mm)
Height (H)	1.18 in (30.00 mm)

Mounting dimensions	
Mount Length (M)	8.8 in (225.80 mm)
Mount Width (X or F)	1.1 in (28.70 mm)
Mount Slots (MS)	0.3 in (7.92 mm)
Weight	2.40 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	18 ft
Remote Mounting Wire Gauge	18 AWG

Lead lengths	
Length (± 1 in)	
Blue and Red	33 in (838 mm)
Black	25 in (635 mm)
White	25 in (635 mm)
Yellow	48 in (1219 mm)
Blue	33 in (838 mm)

UltraStart® T8 Programmed Start

T8 Programmed Start Ballasts For F17 (2 ft), F25 (3 ft), F32 (4 ft) Lamps

29623 – GE-332-120-PS-N

UltraStart® T8 Programmed Start

3 – F32T8 120V Normal Light .87 BF <10% THD UltraStart®

General characteristics	
Ballast Type	Electronic – Programmed / Rapid Start
Starting Method	Programmed start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
29623	29633		

Specifications by lamp and wattage

Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (*F/°C)
F32T8	3	120	84	0.71 A	0.89	1.05	99.00	1.7	10	0 / -18
	2	120	64	0.56 A	1.00	1.56	99.00	1.7	10	0 / -18
	3	120	80	0.69 A	0.87	1.08	0.99	1.7	10	60 / 16
F32T8/WM	2	120	60	0.52 A	0.98	1.63	99.00	1.7	10	60 / 16
	3	120	72	0.62 A	0.85	1.18	99.00	1.7	10	60 / 16
F28T8	2	120	54	0.47 A	0.95	1.75	99.00	1.7	10	60 / 16
	3	120	66	0.57 A	0.89	1.34	99.00	1.7	10	0 / -18
F25T8	2	120	51	0.43 A	0.99	1.94	99.00	1.7	10	0 / -18
	3	120	45	0.39 A	0.88	1.95	99.00	1.7	10	0 / -18
F17T8	2	120	35	0.31 A	0.98	2.80	99.00	1.7	10	0 / -18

Other compatible lamps: F32T8/25W

Safety and performance

29624 – GE-332-277-PS-N

UltraStart® T8 Programmed Start

3 – F32T8 277V Normal Light .87 BF <10% THD UltraStart®

General characteristics	
Ballast Type	Electronic – Programmed / Rapid Start
Starting Method	Programmed start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
29624	29634		

Specifications by lamp and wattage

Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (*F/°C)
F32T8	3	277	85	0.32 A	0.89	1.04	97	1.7	10	0 / -18
	2	277	65	0.25 A	1.00	1.53	97	1.7	10	0 / -18
	3	277	80	0.30 A	0.88	1.10	98	1.7	10	60 / 16
F32T8/WM	2	277	61	0.23 A	0.98	1.60	98	1.7	10	60 / 16
	3	277	72	0.27 A	0.86	1.19	98	1.7	10	60 / 16
F28T8	2	277	55	0.21 A	0.95	1.72	98	1.7	10	60 / 16
	3	277	67	0.26 A	0.89	1.32	97	1.7	10	0 / -18
F25T8	2	277	51	0.20 A	0.99	1.94	96	1.7	11	0 / -18
	3	277	47	0.18 A	0.89	1.89	96	1.7	10	0 / -18
F17T8	2	277	36	0.14 A	0.98	2.72	94	1.7	13	0 / -18

Other compatible lamps: F32T8/25W

Safety and performance

See page 195 for warranty information.

UltraStart® T8 Programmed Start

T8 Programmed Start Ballasts For F17 (2 ft), F25 (3 ft), F32 (4 ft) Lamps

29676 – GE-332-MVPS-H

UltraStart® T8 Programmed Start

3 – F32T8 120V-277V High Light 1.15 BF <10% THD UltraStart®

General characteristics	
Ballast Type	Electronic – Programmed / Rapid Start
Starting Method	Programmed start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	High
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
29676	29656		

Specifications by lamp and wattage

Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (*F/°C)
F32T8	3	120	110	0.95 A	1.15	1.04	98	1.7	10	0 / -18
	3	277	108	0.41 A	1.15	1.06	96	1.7	10	0 / -18
	2	120	82	0.70 A	1.28	1.56	98	1.7	10	0 / -18
	2	277	82	0.32 A	1.28	1.56	94	1.7	10	0 / -18
	3	120	102	0.88 A	1.13	1.10	99	1.7	10	60 / 16
	3	277	100	0.39 A	1.14	1.14	96	1.7	10	60 / 16
F32T8/WM	2	120	77	0.64 A	1.26	1.65	98	1.7	10	60 / 16
	2	277	76	0.30 A	1.26	1.65	95	1.7	10	60 / 16
	3	120	92	0.79 A	1.09	1.18	99	1.7	10	60 / 16
	3	277	91	0.35 A	1.10	1.20	96	1.7	10	60 / 16
	2	277	69	0.27 A	1.23	1.78	94	1.7	10	60 / 16
	2	120	58	0.58 A	1.14	1.32	98	1.7	10	60 / 16
F28T8	3	120	86	0.74 A	1.14	1.34	98	1.7	10	0 / -18
	3	277	85	0.33 A	1.14	1.34	96	1.7	14	0 / -18
	2	120	65	0.56 A	1.25	1.92	98	1.7	10	0 / -18
	2	277	64	0.26 A	1.25	1.92	93	1.7	16	0 / -18

Other compatible lamps: F17T8, F32T8/25W

Safety and performance UL Type 1 Outdoor UL Type HL RoHS Compliant FCC – CLASS A Non-Consumer ANSI – C62.41 UL Class P cUL Listed UL Listed NEMA Premium

96715 – GE332-MVPS-N

UltraStart® T8 Programmed Start

3 – F32T8 120V-277V Normal Light .88 BF <10% THD UltraStart®

General characteristics	
Ballast Type	Electronic – Programmed / Rapid Start
Starting Method	Programmed start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	104°F (40°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Anti-striation control, TCPL compliant, Thermally protected, Universal voltage

Electrical characteristics	
Supply Current Frequency (MIN)	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
96715	96718		

Specifications by lamp and wattage

Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (*F/°C)
F32T8	3	120	86	0.72 A	0.89	1.03	99	1.7	10	0 / -18
	3	277	84	0.30 A	0.89	1.05	97	1.7	10	0 / -18
	2	120	66	0.54 A	0.98	1.48	98	1.7	10	0 / -18
	2	277	65	0.24 A	0.98	1.50	95	1.7	10	0 / -18
	3	120	80	0.66 A	0.86	1.07	99	1.7	10	60 / 16
	3	277	79	0.28 A	0.86	1.08	97	1.7	10	60 / 16
F32T8/WM	2	120	61	0.51 A	0.96	1.57	98	1.7	10	60 / 16
	2	277	61	0.22 A	0.96	1.57	95	1.7	10	60 / 16
	3	120	73	0.61 A	0.84	1.15	99	1.7	10	60 / 16
	3	277	72	0.26 A	0.84	1.16	97	1.7	10	60 / 16
	2	120	57	0.47 A	0.93	1.63	98	1.7	10	60 / 16
	2	277	57	0.21 A	0.93	1.63	95	1.7	10	60 / 16

Other compatible lamps: F17T8, F25T8, F32T8/25W

Safety and performance RoHS Compliant UL Type 1 Outdoor ANSI – C62.41 UL Type HL FCC – CLASS A Non-Consumer UL Class P UL Listed NEMA Premium

UltraStart® T8 Programmed Start

T8 Programmed Start Ballasts For F17 (2 ft), F25 (3 ft), F32 (4 ft) Lamps

96721 – GE332-MVPS-L

UltraStart® T8 Programmed Start

3 – F32T8 120V-277V Low Watts .71 BF <10% THD UltraStart®

General characteristics	
Ballast Type	Electronic – Programmed / Rapid Start
Starting Method	Programmed start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	104°F (40°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Low
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Anti-striation control, Thermally protected, Universal voltage

Electrical characteristics	
Supply Current Frequency (MIN)	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
96721			

Specifications by lamp and wattage

Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (*F/°C)
F32T8	3	120	69	0.60 A	0.71	1.02	99	1.7	10	0 / -18
	3	277	68	0.26 A	0.71	1.04	96	1.7	10	0 / -18
	2	120	52	0.45 A	0.77	1.48	98	1.7	10	0 / -18
	2	277	52	0.19 A	0.77	1.48	92	1.7	10	0 / -18
	3	120	63	0.54 A	0.67	1.06	99	1.7	10	60 / 16
	3	277	62	0.24 A	0.67	1.08	95	1.7	10	60 / 16
F32T8/WM	2	120	48	0.40 A	0.75	1.56	98	1.7	10	60 / 16
	2	277	48	0.18 A	0.75	1.56	92	1.7	10	60 / 16
	3	120	58	0.49 A	0.66	1.13	99	1.7	10	60 / 16
	3	277	58	0.22 A	0.66	1.13	95	1.7	10	60 / 16
	2	120	45	0.38 A	0.74	1.64	98	1.7	10	60 / 16
	2	277	45	0.17 A	0.74	1.64	92	1.7	10	60 / 16
F28T8	3	120	58	0.22 A	0.66	1.13	95	1.7	15	0 / -18
	3	277	54	0.45 A	0.74	1.37	99	1.7	10	0 / -18
	2	120	41	0.35 A	0.82	2.00	98	1.7	10	0 / -18
	2	277	40	0.16 A	0.64	1.60	89	1.7	14	0 / -18

Other compatible lamps: F17T8, F32T8/25W

Safety and performance UL Type 1 Outdoor UL Type HL RoHS Compliant FCC – CLASS A Non-Consumer UL Class P ANSI – C62.41 cUL Listed UL Listed NEMA Premium

29672 – GE-332-MVPS-XL

UltraStart® T8 Programmed Start

3 – F32T8 120V-277V Ultra Low Watt .60 BF <10% THD

General characteristics	
Ballast Type	Electronic – Programmed / Rapid Start
Starting Method	Programmed start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Ultra low
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
29672	29666		

Specifications by lamp and wattage

Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (*F/°C)
F32T8	3	120	67	0.58 A	0.60	0.89	98	1.7	10	0 / -18
	3	277	66	0.26 A	0.60	0.90	93	1.7	10	0 / -18
	2	120	50	0.21 A	0.64	1.28	92	1.7	10	0 / -18
	2	277	49	0.42 A	0.64	1.30	98	1.7	10	0 / -18
	3	120	61	0.53 A	0.59	0.96	99	1.7	10	60 / 16
	3	277	60	0.24 A	0.59	0.98	94	1.7	10	60 / 16
F32T8/WM	2	120	45	0.04 A	0.58	1.01	99	1.7	10	60 / 16
	2	277	45	0.18 A	0.64	1.42	92	1.7	10	60 / 16
	3	120	57	0.49 A	0.58	1.03	99	1.7	10	60 / 16
	3	277	56	0.22 A	0.58	1.03	94	1.7	10	60 / 16
	2	120	42	0.35 A	0.63	1.50	98	1.7	10	60 / 16
	2	277	42	0.17 A	0.63	1.50	91	1.7	10	60 / 16
F28T8	3	120	53	0.45 A	0.60	1.13	98	1.7	10	0 / -18
	3	277	53	0.21 A	0.60	1.13	92	1.7	13	0 / -18
	2	120	40	0.35 A	0.64	1.60	98	1.7	10	0 / -18
	2	277	40	0.16 A	0.64	1.60	89	1.7	14	0 / -18

Other compatible lamps: F17T8, F32T8/25W

Safety and performance UL Type 1 Outdoor UL Type HL RoHS Compliant FCC – CLASS A Non-Consumer ANSI – C62.41 UL Class P cUL Listed UL Listed

UltraStart® T8 Programmed Start

T8 Programmed Start Ballasts For F17 (2 ft), F25 (3 ft), F32 (4 ft) Lamps

29625 – GE-432-120-PS-N

UltraStart® T8 Programmed Start

4 – F32T8 120V Normal Light .87 BF <10% THD UltraStart®

General characteristics	
Ballast Type	Electronic – Programmed / Rapid Start
Starting Method	Programmed start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
29625	29635		

Specifications by lamp and wattage

Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (°F/°C)
F32T8	4	120	112	0.95 A	0.89	0.79	99	1.7	10	0 / -18
	3	120	92	0.79 A	0.96	1.04	99	1.7	10	0 / -18
	4	120	106	0.92 A	0.87	0.82	99	1.7	10	60 / 16
F32T8/WM	3	120	87	0.75 A	0.94	1.08	99	1.7	10	60 / 16
	4	120	96	0.83 A	0.84	0.87	99	1.7	10	60 / 16
F28T8	3	120	79	0.68 A	0.91	1.15	99	1.7	10	60 / 16
	4	120	87	0.75 A	0.88	1.01	99	1.7	10	0 / -18
F25T8	3	120	73	0.63 A	0.95	1.30	99	1.7	10	0 / -18
	4	120	61	0.53 A	0.89	1.45	99	1.7	10	50 / 10
F17T8	3	120	51	0.44 A	0.96	1.88	99	1.7	10	0 / -18

Other compatible lamps: F32T8/25W

Safety and performance RoHS Compliant  UL Type 1 Outdoor  UL Type HL ANSI – C62.41 FCC – CLASS A Non-Consumer  UL Class P cUL Listed  UL Listed 

29627 – GE-432-277-PS-N

UltraStart® T8 Programmed Start

4 – F32T8 277V Normal Light .87 BF <10% THD UltraStart®

General characteristics	
Ballast Type	Electronic – Programmed / Rapid Start
Starting Method	Programmed start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
29627	29650		

Specifications by lamp and wattage

Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (°F/°C)
F32T8	4	277	112	0.42 A	0.89	0.79	99	1.7	10	0 / -18
	3	277	93	0.35 A	0.96	1.03	98	1.7	10	0 / -18
	4	277	103	0.39 A	0.86	0.83	98	1.7	10	60 / 16
F32T8/WM	3	277	85	0.32 A	0.94	1.10	98	1.7	10	60 / 16
	4	277	93	0.35 A	0.84	0.90	98	1.7	10	60 / 16
F28T8	3	277	77	0.29 A	0.91	1.18	98	1.7	10	60 / 16
	4	277	88	0.33 A	0.88	1.00	97	1.7	10	0 / -18
F25T8	3	277	72	0.28 A	0.95	1.31	98	1.7	10	0 / -18
	4	277	62	0.24 A	0.88	1.41	97	1.7	10	0 / -18
F17T8	3	277	51	0.20 A	0.95	1.86	96	1.7	11	0 / -18

Other compatible lamps: F32T8/25W

Safety and performance RoHS Compliant  UL Type 1 Outdoor ANSI – C62.41  UL Type HL FCC – CLASS A Non-Consumer  UL Class P cUL Listed  UL Listed 

UltraStart® T8 Programmed Start

T8 Programmed Start Ballasts For F17 (2 ft), F25 (3 ft), F32 (4 ft) Lamps

96716 – GE432-MVPS-N

UltraStart® T8 Programmed Start

4 F32T8 120V-277V Normal Light .88 BF <10% THD UltraStart®

General characteristics	
Ballast Type	Electronic – Programmed / Rapid Start
Starting Method	Rapid start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	104°F (40°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Anti-striation control, Thermally protected, Universal voltage

Electrical characteristics	
Supply Current Frequency (MIN)	50 Hz / 60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
96716	96719		

Specifications by lamp and wattage

Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (°F/°C)
F32T8	4	120	114	0.97 A	0.89	0.78	99	1.7	10	0 / -18
	3	120	93	0.78 A	0.96	0.79	97	1.7	10	0 / -18
	4	120	105	0.88 A	0.86	0.81	99	1.7	10	60 / 16
F32T8/WM	3	120	86	0.72 A	0.94	1.09	98	1.7	10	60 / 16
	4	120	96	0.81 A	0.83	0.86	99	1.7	10	60 / 16
F28T8	3	120	78	0.29 A	0.92	1.16	98	1.7	10	60 / 16
	4	120	88	0.31 A	0.94	1.10	95	1.7	10	60 / 16

Other compatible lamps: F17T8, F25T8, F32T8/25W

Safety and performance RoHS Compliant  UL Type 1 Outdoor  UL Type HL ANSI – C62.41 FCC – CLASS A Non-Consumer  UL Class P  UL Listed 

71832 – GE432-MVPS-L

UltraStart® T8 Programmed Start

4 – F32T8 120V-277V Low Watts .71 BF <10% THD UltraStart®

General characteristics	
Ballast Type	Electronic – Programmed / Rapid Start
Starting Method	Programmed start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	104°F (40°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Low – PS
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Anti-striation control, Thermally protected, Universal voltage



Electrical characteristics	
Supply Current Frequency	50 Hz
Supply Current Frequency (MIN)	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
71832			

Specifications by lamp and wattage

Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (°F/°C)
F32T8	4	120	90	0.39 A	0.71	0.80	1	1.7	10	0 / -18
	3	120	72	0.32 A	0.58	0.81	1	1.7	10	0 / -18
	4	120	85	0.31 A	0.69	0.82	1	1.7	10	60 / 16
F32T8/WM	3	120	68	0.28 A	0.57	0.84	1	1.7	10	60 / 16
	4	120	77	0.29 A	0.68	0.88	1	1.7	10	60 / 16
F28T8	3	120	63	0.23 A	0.55	0.88	1	1.7	10	60 / 16
	4	120	76	0.28 A	0.68	0.89	1	1.7	10	60 / 16

Other compatible lamps: F17T8, F25T8, F32T8/25W

Safety and performance RoHS Compliant  UL Type 1 Outdoor ANSI – C62.41  UL Type HL FCC – CLASS A Non-Consumer  UL Class P  UL Listed 

- A new generation of ultra-efficient Programmed Start ballasts (> 90% efficiency)
- Extends lamp life in frequently switched applications (> 100,000 on/off cycles)
- Starting time visually the same as instant start
- Multi-voltage technology handles voltage from 120 to 277V (H and XL series)
- Parallel lamp operation means system maintenance is easier to manage

Dimensions	
Wiring diagram – LFL PS4 – see example on page 73	
Case dimensions – Ref Drawing – A – see page 75	
Length (L)	9.5 in (241.30 mm)
Width (W)	1.7 in (43.18 mm)
Height (H)	1.18 in (30.00 mm)
Mounting dimensions	
Mount Length (M)	8.8 in (225.80 mm)
Mount Width (X or F)	1.1 in (28.70 mm)
Mount Slots (MS)	0.3 in (7.92 mm)
Weight	1.65 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	18 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
White and Black	25 in (635 mm)
Blue and Red	33 in (838 mm)
Blue/White	33 in (838 mm)
Red/White	33 in (838 mm)
Yellow	48 in (1219 mm)

- A new generation of ultra-efficient Programmed Start ballasts (> 90% efficiency)
- Extends lamp life in frequently switched applications (> 100,000 on/off cycles)
- Starting time visually the same as instant start
- Multi-voltage technology handles voltage from 120 to 277V (H and XL series)
- Parallel lamp operation means system maintenance is easier to manage

Other compatible lamps: F32T8/25W

Safety and performance RoHS Compliant  UL Type 1 Outdoor  UL Type HL ANSI – C62.41 FCC – CLASS A Non-Consumer  UL Class P cUL Listed  UL Listed 

- A new generation of ultra-efficient Programmed Start ballasts (> 90% efficiency)
- Extends lamp life in frequently switched applications (> 100,000 on/off cycles)
- Starting time visually the same as instant start
- Multi-voltage technology handles voltage from 120 to 277V (H and XL series)
- Parallel lamp operation means system maintenance is easier to manage

Dimensions	
Wiring diagram – LFL PS4 – see example on page 73	
Case dimensions – Ref Drawing – A – see page 75	
Length (L)	9.5 in (241.30 mm)
Width (W)	1.7 in (43.18 mm)
Height (H)	1.18 in (30.00 mm)
Mounting dimensions	
Mount Length (M)	8.8 in (225.80 mm)
Mount Width (X or F)	1.1 in (28.70 mm)
Mount Slots (MS)	0.3 in (7.92 mm)
Weight	1.65 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	18 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
White and Black	25 in (635 mm)
Blue and Red	33 in (838 mm)
Blue/White	33 in (838 mm)
Red/White	33 in (838 mm)
Yellow	48 in (1219 mm)

- A new generation of ultra-efficient Programmed Start ballasts (> 90% efficiency)
- Extends lamp life in frequently switched applications (> 100,000 on/off cycles)
- Starting time visually the same as instant start
- Multi-voltage technology handles voltage from 120 to 277V (H and XL series)
- Parallel lamp operation means system maintenance is easier to manage

Other compatible lamps: F32T8/25W

Safety and performance RoHS Compliant  UL Type 1 Outdoor ANSI – C62.41  UL Type HL FCC – CLASS A Non-Consumer  UL Class P cUL Listed  UL Listed 

UltraStart® T8 Programmed Start

T8 Programmed Start Ballasts For F17 (2 ft), F25 (3 ft), F32 (4 ft) Lamps

29678 – GE-432-MVPS-H

UltraStart® T8 Programmed Start

4 – F32T8 120V-277V High Light 1.15 BF <10% THD UltraStart®

General characteristics	
Ballast Type	Electronic – Programmed / Rapid Start
Starting Method	Programmed start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	High
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
29678	29657		

Specifications by lamp and wattage

Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (*F/*C)
F32T8	4	120	147	1.27 A	1.16	0.78	98	1.7	10	0/-18
	4	277	144	0.55 A	1.16	0.80	96	1.7	10	0/-18
	3	120	120	1.03 A	1.26	1.05	98	1.7	10	0/-18
F32T8/WM	4	120	139	1.20 A	1.15	0.82	97	1.7	10	60/16
	4	277	136	0.52 A	1.15	0.84	97	1.7	10	60/16
	3	120	114	0.95 A	1.24	1.10	98	1.7	10	60/16
F28T8	4	120	125	1.08 A	1.12	0.89	97	1.7	10	60/16
	4	277	123	0.47 A	1.12	0.91	97	1.7	10	60/16
	3	120	103	0.86 A	1.21	0.98	98	1.7	10	60/16
F25T8	4	120	117	1.00 A	1.15	0.98	98	1.7	10	0/-18
	4	277	115	0.44 A	1.15	1.00	96	1.7	16	0/-18
	3	120	97	0.83 A	1.23	1.26	98	1.7	10	0/-18
F17T8	4	120	81	0.69 A	1.15	1.41	98	1.7	10	0/-18
	4	277	80	0.31 A	1.15	1.43	95	1.7	16	0/-18
	3	120	67	0.58 A	1.23	1.83	98	1.7	10	0/-18
Other compatible lamps: F32T8/25W	3	277	67	0.26 A	1.23	1.83	95	1.7	15	0/-18

Safety and performance

RoHS Compliant ANSI - C62.41 UL Type 1 Outdoor UL Type HL FCC - CLASS A Non-Consumer UL Class P cUL Listed UL Listed NEMA Premium

- A new generation of ultra-efficient Programmed Start ballasts (> 90% efficiency)
- Extends lamp life in frequently switched applications (> 100,000 on/off cycles)
- Starting time visually the same as instant start
- Multi-voltage technology handles voltage from 120 to 277V (H and XL series)
- Parallel lamp operation means system maintenance is easier to manage

Dimensions	
Wiring diagram – LFL PS4 – see example on page 73	
Case dimensions – Ref Drawing LG – see page 75	
Length (L)	11.75 in (298.45 mm)
Width (W)	2.4 in (60.96 mm)
Height (H)	1.6 in (41.91 mm)
Mounting dimensions	
Mount Length (M)	11.1 in (282.97 mm)
Mount Width (X or F)	1.6 in (42.92 mm)
Mount Slots (MS)	0.3 in (7.92 mm)
Weight	3.10 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	18 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
Length (± 1 in)	
White and Black	25 in (635 mm)
Blue and Red	33 in (838 mm)
Blue/White	33 in (838 mm)
Red/White	33 in (838 mm)
Yellow	48 in (1219 mm)

T8 Dimming

T8 Dimming Ballasts For F17 (2 ft), F25 (3 ft), F32 (4 ft) Lamps

80353 – B132R120VS

T8 Dimming Ballasts

1 – F32T8 DIM 100 to 5% RS 120

General characteristics	
Ballast Type	Electronic – Dimming
Starting Method	Rapid start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
80353			

Specifications by lamp and wattage

Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (*F/*C)
F32T8	1	120	32	0.26 A	0.88	2.75	99	1.6	10	50 / 10
F25T8	1	120	26	0.21 A	0.90	3.46	99	1.6	10	50 / 10

Safety and performance

UL Type 1 Outdoor UL Type HL FCC - CLASS A Non-Consumer UL Class P UL Listed CSA

80355 – B232SR120VS

T8 Dimming Ballasts

2 – F32T8 DIM 100 to 5% RS 120

General characteristics	
Ballast Type	Electronic – Dimming
Starting Method	Rapid start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
80355			

Specifications by lamp and wattage

Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (*F/*C)
F32T8	2	120	62	0.52 A	0.88	1.41	99	1.6	10	50 / 10

Safety and performance

UL Type 1 Outdoor UL Type HL FCC - CLASS A Non-Consumer UL Class P UL Listed CSA

- Integrate dimming ballasts with daylight harvesting for significant energy savings
- Greater control of workspace lighting, ability to create a mood, energy savings
- Designed to ensure optimum lamp performance with lamp current crest factor below the 1.7 ANSI standard
- Start lamps according to ANSI recommendations throughout the entire dimming range

Dimensions	
Wiring diagram – LFL 18b – see example on page 74	
Case dimensions – Ref Drawing ST – see page 75	
Length (L)	9.5 in (241.30 mm)
Width (W)	2.4 in (60.45 mm)
Height (H)	1.6 in (39.37 mm)
Mounting dimensions	
Mount Length (M)	8.9 in (225.80 mm)
Mount Width (X or F)	1.7 in (42.92 mm)
Mount Slots (MS)	0.3 in (7.92 mm)
Weight	2.30 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	12 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
Length (± 1 in)	
Blue and Red	51 in (1295 mm)
Gray and Violet	33 in (838 mm)
White and Black	25 in (635 mm)

- Integrate dimming ballasts with daylight harvesting for significant energy savings
- Greater control of workspace lighting, ability to create a mood, energy savings
- Designed to ensure optimum lamp performance with lamp current crest factor below the 1.7 ANSI standard
- Start lamps according to ANSI recommendations throughout the entire dimming range

Dimensions	
Wiring diagram – LFL 19 – see example on page 74	
Case dimensions – Ref Drawing ST – see page 75	
Length (L)	9.5 in (241.30 mm)
Width (W)	2.4 in (60.45 mm)
Height (H)	1.6 in (39.37 mm)
Mounting dimensions	
Mount Length (M)	8.9 in (225.80 mm)
Mount Width (X or F)	1.7 in (42.92 mm)
Mount Slots (MS)	0.3 in (7.92 mm)
Weight	2.30 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	12 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
Length (± 1 in)	
Blue and Red	33 in (838 mm)
Gray and Violet	33 in (838 mm)
White and Black	25 in (635 mm)
Yellow	51 in (1295 mm)

T8 Dimming

T8 Dimming Ballasts For F17 (2 ft), F25 (3 ft), F32 (4 ft) Lamps

80362 – B232SR277S50

T8 Dimming Ballasts


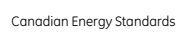

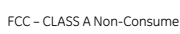



2 – F32T8 Switch 100/50% RS 277

General characteristics	
Ballast Type	Electronic – Dimming
Starting Method	Rapid start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
80362			

Specifications by lamp and wattage											
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (°F/°C)	
F32T8	2	277	62	0.23 A	0.88	1.41	99	1.7	10	50 / 10	
F25T8	2	277	48	0.18 A	0.88	1.83	99	1.7	10	50 / 10	

Safety and performance  UL Type 1 Outdoor  Canadian Energy Standards  UL Type HL  FCC – CLASS A Non-Consumer  UL Class P  UL Listed  CSA

- Integrate dimming ballasts with daylight harvesting for significant energy savings
- Greater control of workspace lighting, ability to create a mood, energy savings
- Designed to ensure optimum lamp performance with lamp current crest factor below the 1.7 ANSI standard
- Start lamps according to ANSI recommendations throughout the entire dimming range

Dimensions	
Wiring diagram – LFL 16 – see example on page 74	
Case dimensions – Ref Drawing ST – see page 75	
Length (L)	9.5 in (241.30 mm)
Width (W)	2.4 in (60.45 mm)
Height (H)	1.6 in (39.37 mm)
Mounting dimensions	
Mount Length (M)	8.9 in (225.80 mm)
Mount Width (X or F)	1.7 in (42.92 mm)
Mount Slots (MS)	0.3 in (7.92 mm)
Weight	2.30 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	12 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
Length (± 1 in)	
White and Black	25 in (635 mm)
Blue and Red	33 in (838 mm)
Black/White	25 in (635 mm)

T8 Dimming

T8 Dimming Ballasts For F17 (2 ft), F25 (3 ft), F32 (4 ft) Lamps

80357 – B332SR120V5

T8 Dimming Ballasts







3 – F32T8 DIM 100 to 5% RS 120

General characteristics	
Ballast Type	Electronic – Dimming
Starting Method	Rapid start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
80357			

Specifications by lamp and wattage											
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (°F/°C)	
F32T8	3	120	92	0.77 A	0.88	0.95	99	1.5	10	50 / 10	

Safety and performance  UL Type 1 Outdoor  UL Type HL  FCC – CLASS A Non-Consumer  UL Class P  UL Listed  CSA

- Integrate dimming ballasts with daylight harvesting for significant energy savings
- Greater control of workspace lighting, ability to create a mood, energy savings
- Designed to ensure optimum lamp performance with lamp current crest factor below the 1.7 ANSI standard
- Start lamps according to ANSI recommendations throughout the entire dimming range

Dimensions	
Wiring diagram – LFL 20 – see example on page 74	
Case dimensions – Ref Drawing ST – see page 75	
Length (L)	9.5 in (241.30 mm)
Width (W)	2.4 in (60.45 mm)
Height (H)	1.6 in (39.37 mm)
Mounting dimensions	
Mount Length (M)	8.9 in (225.80 mm)
Mount Width (X or F)	1.7 in (42.92 mm)
Mount Slots (MS)	0.3 in (7.92 mm)
Weight	2.30 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	12 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
Length (± 1 in)	
Gray and Violet	33 in (838 mm)
Blue and Red	36 in (914 mm)
Red/White	36 in (914 mm)
White and Black	25 in (635 mm)
Yellow	36 in (914 mm)

80356 – B232SR277V5

T8 Dimming Ballasts



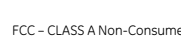



2 – F32T8 DIM 100 to 5% RS 277

General characteristics	
Ballast Type	Electronic – Dimming
Starting Method	Rapid start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
80356			

Specifications by lamp and wattage											
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (°F/°C)	
F32T8	2	277	62	0.22 A	0.88	1.41	99	1.6	10	50 / 10	

Safety and performance  UL Type 1 Outdoor  UL Type HL  FCC – CLASS A Non-Consumer  UL Class P  UL Listed  CSA

- Integrate dimming ballasts with daylight harvesting for significant energy savings
- Greater control of workspace lighting, ability to create a mood, energy savings
- Designed to ensure optimum lamp performance with lamp current crest factor below the 1.7 ANSI standard
- Start lamps according to ANSI recommendations throughout the entire dimming range

Dimensions	
Wiring diagram – LFL 19 – see example on page 74	
Case dimensions – Ref Drawing ST – see page 75	
Length (L)	9.5 in (241.30 mm)
Width (W)	2.4 in (60.45 mm)
Height (H)	1.6 in (39.37 mm)
Mounting dimensions	
Mount Length (M)	8.9 in (225.80 mm)
Mount Width (X or F)	1.7 in (42.92 mm)
Mount Slots (MS)	0.3 in (7.92 mm)
Weight	2.30 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	12 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
Length (± 1 in)	
Blue and Red	33 in (838 mm)
Gray and Violet	33 in (838 mm)
White and Black	25 in (635 mm)
Yellow	51 in (1295 mm)

80358 – B332SR277V5

T8 Dimming Ballasts

3 – F32T8 DIM 100 to 5% RS 277

General characteristics	
Ballast Type	Electronic – Dimming
Starting Method	Rapid start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
80358			

Specifications by lamp and wattage											
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor% (>=)	Crest Factor (<=)	THD% (<=)	Min. Starting Temp (°F/°C)	
F32T8	3	277	92	0.33 A	0.88	0.95	99	1.5	10	50 / 10	

Safety and performance  UL Type 1 Outdoor  UL Type HL  FCC – CLASS A Non-Consumer  UL Class P  UL Listed  CSA

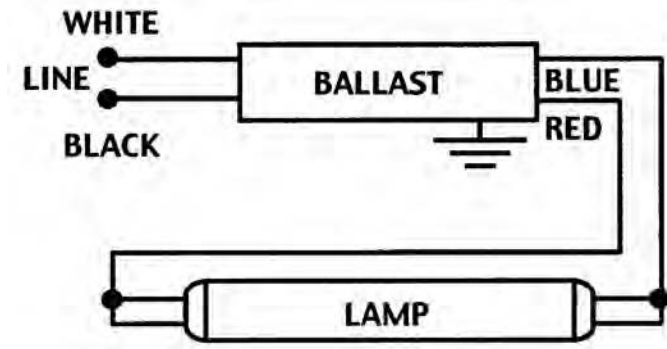
- Integrate dimming ballasts with daylight harvesting for significant energy savings
- Greater control of workspace lighting, ability to create a mood, energy savings
- Designed to ensure optimum lamp performance with lamp current crest factor below the 1.7 ANSI standard
- Start lamps according to ANSI recommendations throughout the entire dimming range

Dimensions	
Wiring diagram – LFL 20 – see example on page 74	
Case dimensions – Ref Drawing ST – see page 75	
Length (L)	9.5 in (241.30 mm)
Width (W)	2.4 in (60.45 mm)
Height (H)	1.6 in (39.37 mm)
Mounting dimensions	
Mount Length (M)	8.9 in (225.80 mm)
Mount Width (X or F)	1.7 in (42.92 mm)
Mount Slots (MS)	0.3 in (7.92 mm)
Weight	2.30 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	12 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
Length (± 1 in)	
Gray and Violet	33 in (838 mm)
Blue and Red	36 in (914 mm)
Red/White	36 in (914 mm)
White and Black	25 in (635 mm)
Yellow	36 in (914 mm)

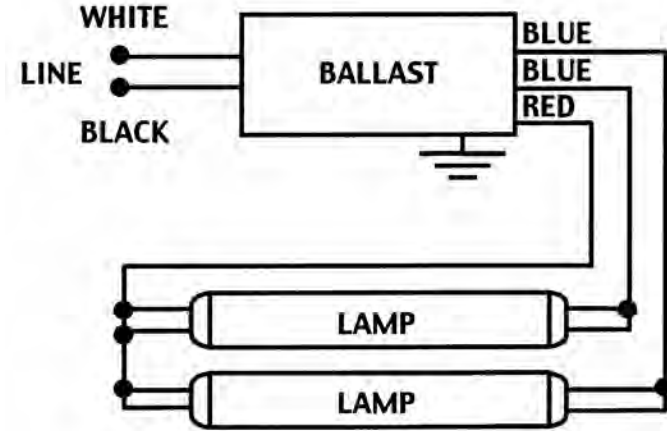
Wiring Diagrams

T8 Fluorescent Ballasts

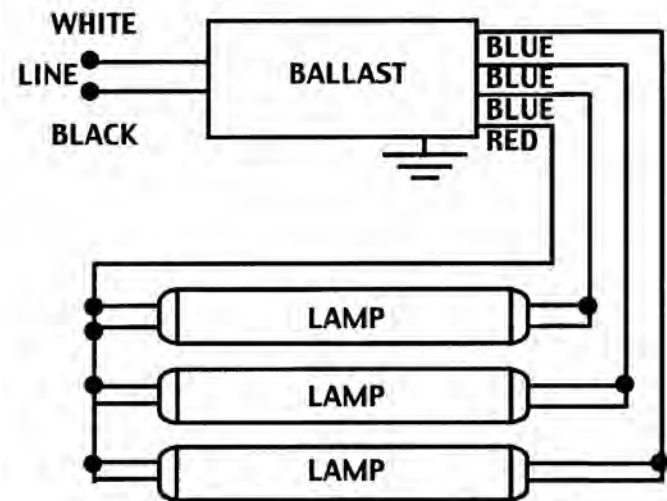
LFL 1A



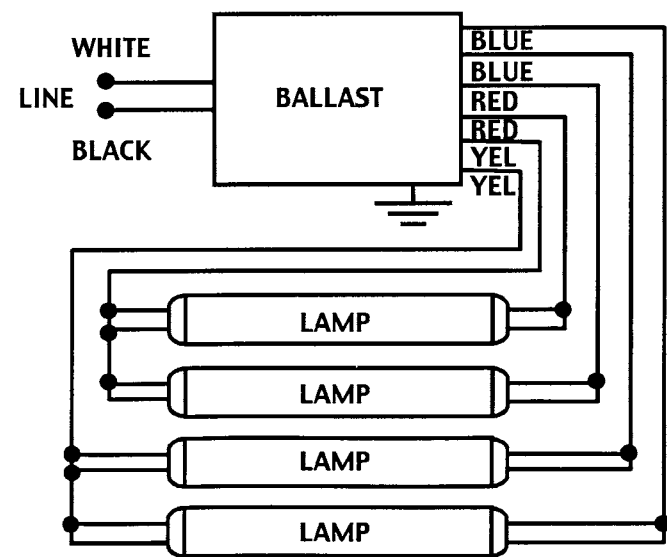
LFL 1B



LFL 1C



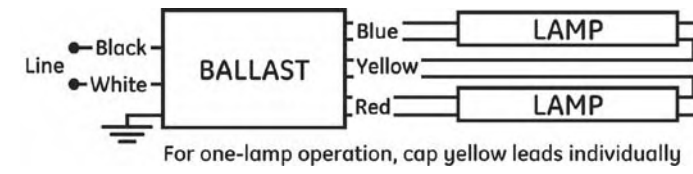
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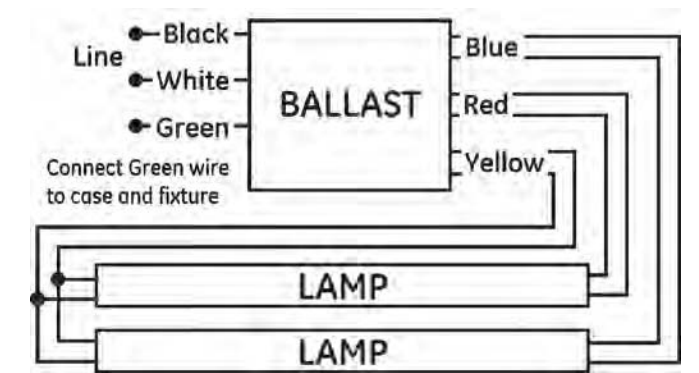
Wiring Diagrams

T8 Fluorescent Ballasts

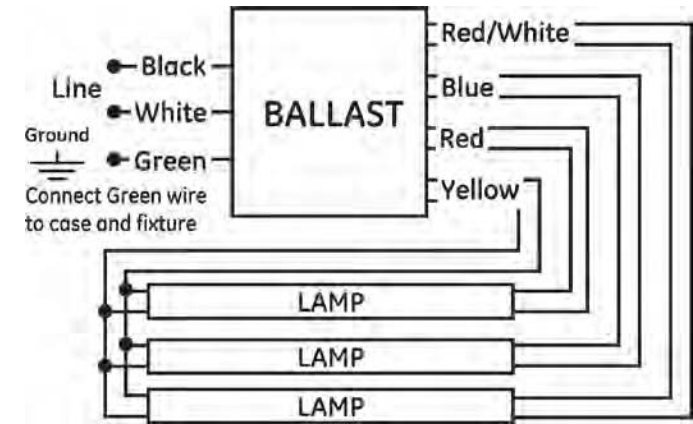
LFL 4a



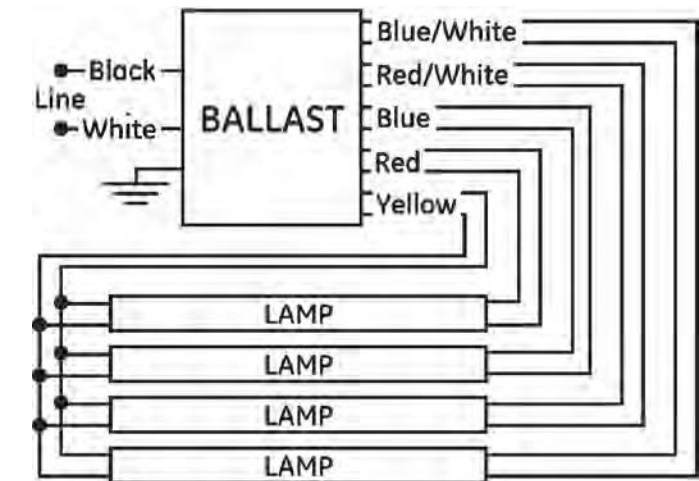
LFL PS2



LFL PS3



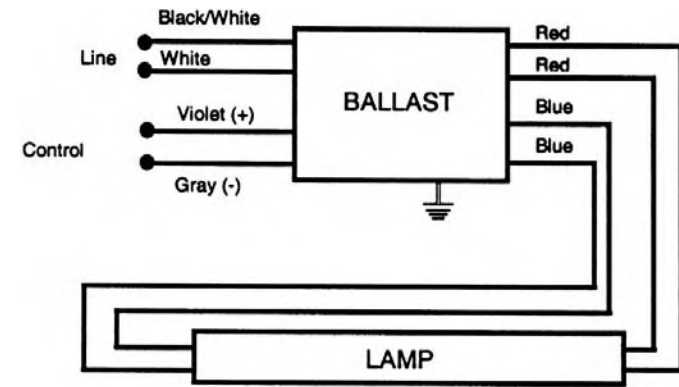
LFL PS4



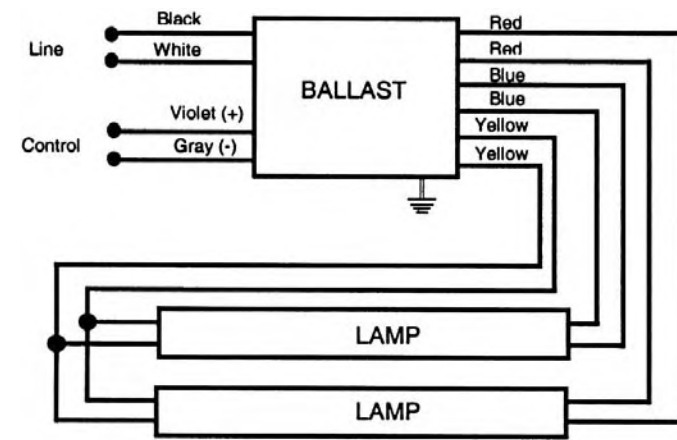
Wiring Diagrams

T8 Fluorescent Ballasts

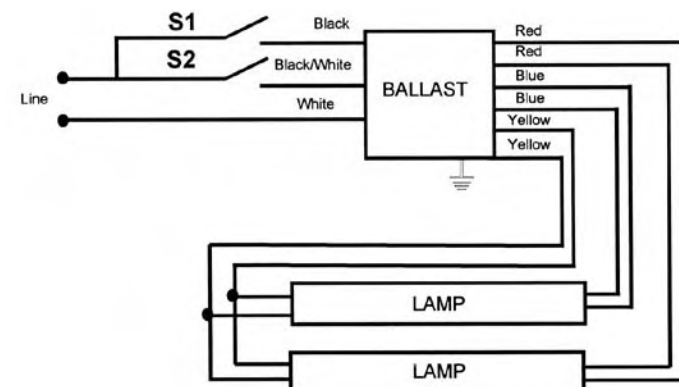
LFL 18b



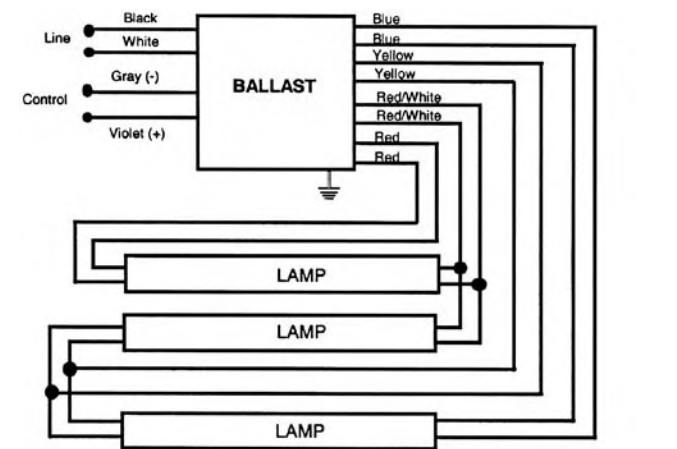
LFL 19



LFL 16



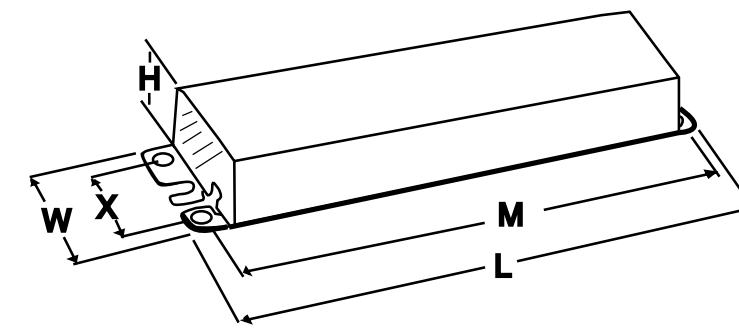
LFL 20



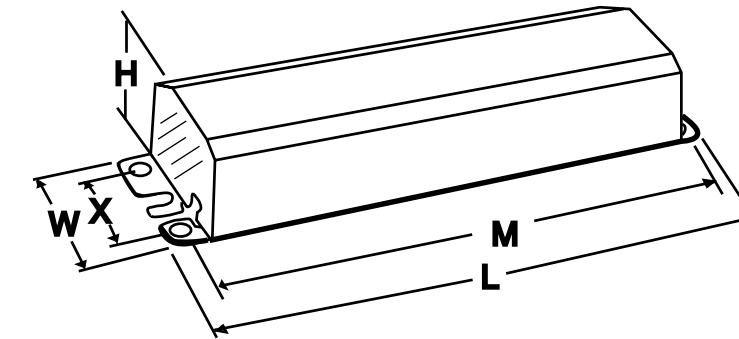
Case Dimensions

T8 Fluorescent Ballasts

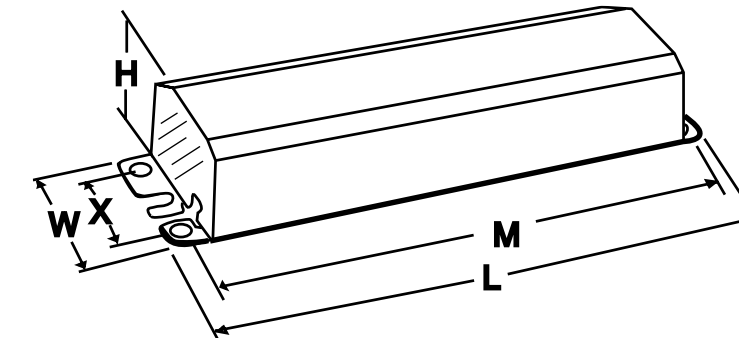
-A



ST



LG





Understanding T5 Electronic Programmed Start Ballasts

UltraStart® T5 programmed start ballasts for T5 fluorescent lamps.

GE has developed a line of T5 ballasts that incorporate the benefits of programmed start ballasts with the energy savings, fast starting and parallel lamp operation of instant start ballasts. GE's UltraStart® T5 ballasts use low energy loss, high efficiency components along with continuous cathode cutout (CCC) technology—resulting in 8 fewer watts than standard 4-lamp 54 watt T5 ballasts. GE's UltraStart® T5 ballasts offer a 44% improvement over standard T5 ballasts and create a new industry threshold for high efficiency ballasts.

The GE UltraStart® Watt-Miser® T5 Lamp and Ballast System Advantage

- 18 watts lower than standard 4-lamp, 54 watt T5 systems with the same light output
- Operates lamps in parallel (which means if one lamp fails, the other lamps remain on) – significantly reduces lamp maintenance costs
- Fast starting programmed start ballast < 700 milliseconds compared to standard T5 at > 1.1 to 1.5 seconds

GE UltraStart® T5 programmed start ballasts use a control circuit to apply very precise cathode heat to ensure lamp cathodes have reached optimum temperature during lamp starting. Precise starting reduces the amount of cathode degradation associated with each start and increases lamp life significantly. After starting the lamps, continuous cathode cutout technology (CCC) is applied—which eliminates wasted power to the lamps, resulting in high efficiencies. GE UltraStart® systems also have the advantage of operating lamps in parallel. Parallel (versus series) lamp operation ballasts typically reduce spot relamping costs by 50% or extend group relamping by 15% or more due to average lamp mortality early failures.

T5 Lamps

GE T5 lamps can be electrically characterized into two groups:

High Efficiency (HE) Lamps (F14T5, F21T5, F28T5, F35T5 – standard, high-lumen and Watt-Miser®)

These lamps are high efficiency (HE), delivering around 100 lumens per watt and, while operating at the same lamp arc current, can be operated on the same ballast if the ballast system power and starting voltage are appropriate for the lamp load.

High Output (HO) Lamps (F24T5, F39T5, F54T5, F49T5, F80T5 – standard and Watt-Miser®)

These lamps are driven for high light output and are slightly less efficient (LPW) than HE lamps. They have unique lamp arc currents and starting voltages by wattage that require a specific ballast for each HO lamp wattage.



T5 High Efficiency – Programmed Start

T5 Electronic Programmed Start For F14 (2 ft), F21 (3 ft), F28 (4 ft), F35 (5 ft) HE T5 Lamps*

99653 – GE228MVPSH-A

T5 High Efficiency - UltraStart® Programmed Start
2 or 1 – F14-F28T5HE, 120 to 277 UltraStart® PRS High Light 1.15 BF A Can

General characteristics	
Ballast Type	Electronic – Programmed / Rapid Start
Starting Method	Programmed start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	104°F (40°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	High (1.15)
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, End-of-Life Protection (EOL), Thermally protected, Universal voltage, Anti-striation control

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
99653	99654		

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
F28T5/HE	2	120	72	0.60 A	1.16	1.61	99	1.7	10	5/-15
	2	277	70	0.25 A	1.16	1.66	97	1.65	9	5/-15
F28T5/WM	1	120	45	0.37 A	1.36	3.02	99	1.7	10	5/-15
	1	277	45	0.17 A	1.36	3.02	93	1.7	10	5/-15
F21T5/HE	2	120	68	0.57 A			99	1.7	10	5/-15
	2	277	67	0.25 A			96	1.7	10	5/-15
F21T5/WM	2	120	57	0.47 A			99	1.7	10	5/-15
	2	277	56	0.21 A			95	1.7	10	5/-15
F14T5/HE	1	120	36	0.30 A			99	1.7	10	5/-15
	1	277	36	0.14 A			90	1.7	10	5/-15
F14T5/WM	1	120	43	0.36 A			99	1.7	10	5/-15
	1	277	43	0.17 A			92	1.7	10	5/-15

Other compatible lamps: F28T5/WM, F14T5/HE, F14T5/WM, F21T5/WM, F28T5/HL

Safety and performance UL Type CC UL Type 1 Outdoor UL Listed UL Type HL FCC - CLASS A Non-Consumer UL Class P cUL Listed Meets ANSI Standard C62.41-1991
RoHS Compliant Meets ANSI Standard C82.11- cons 2002

99655 – GE228MVPS-A

T5 High Efficiency - UltraStart® Programmed Start
2 or 1 – F14-F35T5HE, 120 – 277 UltraStart® PRS Normal Light - .95 BF A Can

General characteristics	
Ballast Type	Electronic – Programmed / Rapid Start
Starting Method	Programmed start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	104°F (40°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, End-of-Life Protection (EOL), Thermally protected, Universal voltage, Anti-striation control

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
99655	99656		

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
F35T5/HE	2	120	75	0.62 A			99	1.7	10	5/-15
	2	277	73	0.27 A			97	1.7	9	5/-15
F28T5/HE	1	120	46	0.39 A			99	1.7	10	5/-15
	1	277	46	0.18 A			93	1.7	10	5/-15
F28T5/WM	2	120	60	0.50 A	0.96	1.60	99	1.7	10	5/-15
	2	277	59	0.23 A	0.96	1.63	96	1.7	9	5/-15
F21T5/HE	1	120	38	0.31 A	1.09	2.87	99	1.7	10	5/-15
	1	277	38	0.15 A	1.09	2.87	91	1.7	10	5/-15
F14T5/HE	2	120	57	0.48 A	0.95	1.67	99	1.7	10	5/-15
	2	277	57	0.21 A	0.95	1.67	95	1.7	10	5/-15
F14T5/WM	1	120	36	0.30 A			99	1.7	10	5/-15
	1	277	36	0.15 A			90	1.7	10	5/-15

Other compatible lamps: F21T5/HE, F21T5/WM, F14T5/HE, F14T5/WM, F35T5/WM, F28T5/HL

Safety and performance UL Type CC UL Type 1 Outdoor UL Listed UL Type HL FCC - CLASS A Non-Consumer UL Class P cUL Listed Meets ANSI Standard C62.41-1991
RoHS Compliant Meets ANSI Standard C82.11- cons 2002

- High Efficiency T5 ballast with Continuous Cathode Cutout Technology
- Lower Maintenance Costs with Parallel Lamp Operation
- Fast Starting Time <700ms
- Multi-Voltage technology means a single ballast handles voltage from 108V to 305V
- Auto-Restart withstands temporary losses in power without the need to cycle power
- UltraCool™ Operation 90C case rating

Dimensions	
Wiring diagram – LFL 4a – see example on page 82	
Case dimensions – Ref Drawing – A Can – see page 83	
Length (L)	9.5 in (241.30 mm)
Width (W)	1.7 in (43.18 mm)
Height (H)	1.2 in (30.48 mm)
Mounting dimensions	
Mount Length (M)	8.9 in (226.06 mm)
Mount Slots (MS)	0.3 in (6.35 mm)
Weight	1.49 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	8 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
Length (+ 1 in)	
White and Black	25 in (635 mm)
Blue and Red	34 in (864 mm)
Green	3.5 in (89 mm)
Yellow	45 in (1143 mm)

- High Efficiency T5 ballast with Continuous Cathode Cutout Technology
- Lower Maintenance Costs with Parallel Lamp Operation
- Fast Starting Time <700ms
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Green	3.5 in (89 mm)
Yellow	45 in (1143 mm)

T5 High Efficiency – Programmed Start

T5 Electronic Programmed Start For F14 (2 ft), F21 (3 ft), F28 (4 ft), F35 (5 ft) HE T5 Lamps*

47536 – B228PUNV-COG1C

T5 High Efficiency - Programmed Start






2 – F28T5 PRS UNV 50/60 Hz, C Can

General characteristics	
Ballast Type	Electronic – Programmed / Rapid Start
Starting Method	Programmed start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, End-of-Life Protection (EOL), Thermally protected, Universal voltage

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
47536			

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (*F/*C)
F35T5/HE	2	120	81	0.67 A	0.98	1.20	1.7	1.7	10	0/-18
	2	277	78	0.28 A	0.98	1.25	1.7	1.7	10	0/-18
	1	120	40	0.34 A	0.98	2.45	1.7	1.7	10	0/-18
	1	277	40	0.15 A	0.95	2.37	1.7	1.7	10	0/-18
	2	120	66	0.55 A	0.98	1.48	1.7	1.7	10	0/-18
	2	277	64	0.23 A	0.98	1.53	1.7	1.7	10	0/-18
F28T5/HE	1	120	33	0.28 A	0.98	2.96	1.7	1.7	10	0/-18
	1	277	33	0.12 A	0.95	2.87	1.7	1.7	10	0/-18
	2	120	49	0.41 A	0.98	2.00	1.7	1.7	10	0/-18
F21T5/HE	2	277	48	0.17 A	0.98	2.04	1.7	1.7	10	0/-18
	1	120	25	0.21 A	0.98	3.92	1.7	1.7	10	0/-18
	2	120	34	0.28 A	0.98	2.88	1.7	1.7	10	0/-18
F14T5/HE	2	277	34	0.12 A	0.95	2.79	1.7	1.7	10	0/-18
	1	120	18	0.15 A	0.98	5.44	1.7	1.7	10	0/-18
F14T5/HE	1	277	18	0.07 A	0.95	5.27	1.7	1.7	15	0/-18

Safety and performance  UL Type 1 Outdoor  UL Type HL FCC – CLASS A Non-Consumer  UL Class P  CSA  UL Listed

T5 High Output – Programmed Start

T5 Electronic Programmed Start For F24 (2 ft), F39 (3 ft), F54 (4 ft), F80 (5 ft) HO T5 Lamps*

47534 – B224PUNV-COG1C

T5 High Output - Programmed Start

2 – F24T5HO PRS UNV 50/60 Hz C Can

General characteristics	
Ballast Type	Electronic – Programmed / Rapid Start
Starting Method	Programmed start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	75°C (167°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, End-of-Life Protection (EOL), Thermally protected, Universal voltage

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
47534			

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (*F/*C)
F24T5/HO	2	120	53	0.45 A	0.98	1.84	1.7	1.7	10	0/-18
	2	277	52	0.19 A	0.98	1.88	1.7	1.7	10	0/-18
	1	120	28	0.23 A	0.98	3.50	1.7	1.7	10	0/-18
	1	277	28	0.10 A	0.95	3.39	1.7	1.7	10	0/-18
	2	120	52	0.43 A	0.98	1.88	1.7	1.7	10	0/-18
	2	277	51	0.18 A	0.98	1.92	1.7	1.7	10	0/-18
FT24W/4P	1	120	27	0.22 A	0.98	3.62	1.7	1.7	10	0/-18
	1	277	27	0.10 A	0.95	3.51	1.7	1.7	15	0/-18
	2	120	48	0.40 A	0.98	2.04	1.7	1.7	10	0/-18
FT24W/2G10	2	277	47	0.17 A	0.98	2.08	1.7	1.7	10	0/-18
	1	120	24	0.20 A	0.98	4.08	1.7	1.7	10	0/-18
	1	277	24	0.09 A	0.95	3.95	1.7	1.7	15	0/-18
F39T5/HO	1	120	41	0.34 A	0.98	2.39	95	1.7	10	0/-18
	1	277	40	0.15 A	0.98	2.45	95	1.7	10	0/-18
FT36W/4P	1	120	36	0.30 A	0.98	2.72	95	1.7	10	0/-18
	1	277	36	0.13 A	0.95	2.63	95	1.7	10	0/-18

Other compatible lamps: F36W/2G10

Safety and performance  UL Type 1 Outdoor  UL Type HL FCC – CLASS A Non-Consumer  UL Class P  CSA  UL Listed

47540 – B239PUNV-DOG1C

T5 High Output - Programmed Start






2 – F39T5HO PRS UNV 50/60 Hz D Can

General characteristics	
Ballast Type	Electronic – Programmed / Rapid Start
Starting Method	Programmed start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, End-of-Life Protection (EOL), Thermally protected, Universal voltage

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
47540			

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (*F/*C)
F39T5/HO	2	120	89	0.74 A	0.98	1.10	1.7	1.7	10	0/-18
	2	277	88	0.32 A	0.98	1.11	1.7	1.7	10	0/-18
	1	120	47	0.39 A	0.98	2.08	1.7	1.7	10	0/-18
	1	277	47	0.17 A	0.95	2.02	1.7	1.7	10	0/-18
	2	120	71	0.59 A	0.98	1.38	97	1.7	10	0/-18
	2	277	70	0.25 A	0.95	1.35	97	1.7	10	0/-18
FT39W/4P	1	120	38	0.31 A	0.98	2.57	1.7	1.7	10	0/-18
	1	277	38	0.14 A	0.90	2.36	1.7	1.7	10	0/-18
	2	120	59	0.51 A	0.98	1.66	1.7	1.7	10	0/-18
F24T5/HO	2	277	59	0.22 A	0.95	1.61	1.7	1.7	10	0/-18
	1	120	32	0.26 A	0.98	3.06	1.7	1.7	10	0/-18
	1	277	32	0.12 A	0.90	2.81	1.7	1.7	10	0/-18

Safety and performance  UL Type 1 Outdoor  UL Type HL FCC – CLASS A Non-Consumer  UL Class P  CSA  UL Listed

T5 High Output – Programmed Start

T5 Electronic Programmed Start For F24 (2 ft), F39 (3 ft), F54 (4 ft), F80 (5 ft) HO T5 Lamps*

99651 – GE254MVPS90-F

T5 High Output - UltraStart® Programmed Start

2 or 1 – F54T5HO 120 to 277V UltraStart® PRS High Temp F Can

General characteristics	
Ballast Type	Electronic – Programmed / Rapid Start
Starting Method	Programmed start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	104°F (40°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, End-of-Life Protection (EOL), Thermally protected, Universal voltage, Anti-striation control

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
99651	99652		

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
FT50W/4P	2	120	117	0.99 A	1.00	0.99	99	1.7	1	5/-15
	2	277	115	0.43 A	0.98	1.53	98	1.7	1	5/-15
	1	120	72	0.61 A	0.98	2.96	72	1.7	10	5/-15
	1	277	72	0.27 A	0.95	2.87	97	1.7	1	5/-15
	2	120	116	0.98 A	1.00	0.86	99	1.68	4.6	5/-15
	2	277	115	0.43 A	1.00	0.87	98	1.68	7.9	5/-15
F54T5/HO	1	120	71	0.60 A	1.00	0.92	99	1.7	10	5/-15
	1	277	71	0.26 A	1.00	0.97	97	1.7	10	5/-15
	2	120	109	0.91 A	1.00	0.92	99	1.7	10	5/-15
	2	277	107	0.40 A	1.00	0.93	97	1.7	10	5/-15
F54T5WM	1	120	66	0.56 A	1.12	1.70	99	1.7	10	5/-15
	1	277	66	0.25 A	1.12	1.70	97	1.7	10	5/-15

Other compatible lamps: FC12T5HO, F58T8, FT39W/4P, FT55W/4P

Safety and performance

UL Type 1 Outdoor
 UL Type CC
 UL Listed
 UL Type HL
 Meets ANSI Standard C62.41-1991
 UL Class P
 Meets ANSI Standard C82.11- cons 2002
 RoHS Compliant
 FCC – CLASS A Non-Consumer

47542 – B254PUNV-DGE1C

T5 High Output - UltraStart® Programmed Start

2 – F54T5HO PRS UNV 50/60 Hz D Can

General characteristics	
Ballast Type	Electronic – Programmed / Rapid Start
Starting Method	Programmed start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, End-of-Life Protection (EOL), Thermally protected, Universal voltage

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
47542			

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
F54T5/HO	2	120	120	1.03 A	1.00	0.83	99	1.7	10	0/-18
	2	277	117	0.43 A	1.00	0.85	98	1.7	10	0/-18
	1	120	63	0.52 A	1.02	1.61	99	1.7	10	0/-18
	1	277	62	0.23 A	1.02	1.64	95	1.7	10	0/-18
	2	120	106	0.88 A	0.85	0.80	99	1.7	10	0/-18
	2	277	103	0.38 A	0.85	0.82	98	1.7	10	0/-18
FC12T5-55W	1	120	56	0.46 A	0.87	1.55	99	1.7	10	0/-18
	1	277	56	0.21 A	0.87	1.55	95	1.7	10	0/-18
	2	120	90	0.75 A	1.20	1.33	99	1.7	10	0/-18
	2	277	88	0.32 A	1.20	1.36	98	1.7	10	0/-18
FT36W/4P	1	120	44	0.37 A	1.22	2.77	99	1.7	10	0/-18
	1	277	44	0.17 A	1.22	2.77	90	1.7	10	0/-18
	1	120	60	0.50 A	1.12	1.86	99	1.7	10	0/-18
FT55W/4P	1	120	60	0.48 A	0.92	1.53	99	1.7	10	0/-18

Safety and performance

UL Type 1 Outdoor
 UL Type HL
 FCC – CLASS A Non-Consumer
 UL Class P
 UL Listed
 CSA

T5 High Output – Programmed Start

T5 Electronic Programmed Start For F24 (2 ft), F39 (3 ft), F54 (4 ft), F80 (5 ft) HO T5 Lamps*

99649 – GE454MVPS90-E

T5 High Output - UltraStart® Programmed Start

4 – 1 – F54T5HO 120 – 277 UltraStart® PRS High Temp E Can

General characteristics	
Ballast Type	Electronic – Programmed / Rapid Start
Starting Method	Programmed start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, End-of-Life Protection (EOL), Thermally protected, Anti-striation control

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
99649	99650		

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
FT50W/4P	4	277	216	0.79 A	1.00	0.46	0.98	1.63	7	5/-15
	3	277	174	0.66 A	1.01	0.58	0.95	1.62	9	5/-15
	2	277	117	0.48 A	0.96	0.82	0.90	1.61	11	5/-15
	1	277	77	0.34 A	1.12	1.46	0.81	1.56	16	5/-15
	4	120	220	1.84 A	0.96	0.44	0.99	1.64	6	5/-15
	3	120	177	1.48 A	1.00	0.56	0.99	1.62	7	5/-15
	2	120	118	0.99 A	0.96	0.81	0.99	1.60	10	5/-15
	1	120	77	0.64 A	1.12	1.46	0.99	1.55	13	5/-15
	4	277	226	0.83 A	1.00	0.44	0.98	1.64	7	5/-15
	3	277	185	0.69 A	1.01	0.55	0.97	1.62	8	5/-15
F54T5WM	2	277	121	0.49 A	0.96	0.80	0.89	1.63	12	5/-15
	1	277	78	0.35 A	1.12	1.43	0.81	1.56	14	5/-15
	4	120	232	1.94 A	0.96	0.41	0.99	1.65	6	5/-15
	3	120	188	1.58 A	1.00	0.53	0.99	1.64	8	5/-15
	2	120	121	1.024 A	0.96	0.79	0.99	1.62	9	5/-15
	1	120	82	0.69 A	1.12	1.36	0.99	1.55	12	5/-15

Other compatible lamps: FT55W/4P, FT50W/4P, FT39W/4P, FC12T5HO, F58T8

Safety and performance

RoHS compliant
 UL Type 1 Outdoor
 UL Type HL
 FCC – CLASS A Non-Consumer
 ANSI-C62.41
 UL Class P
 cUL Listed
 UL Type CC
 UL Listed

29726 – GE454MVPSN1

T5 High Output - UltraStart® Programmed Start

4, 3, 2 or 1 – F54T5HO 120 to 277 UltraStart® PRS J Can

General characteristics	
Ballast Type	Electronic – Programmed / Rapid Start
Starting Method	Programmed start
Lamp Wiring	Series – parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, End-of-Life Protection (EOL), Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
29726	29717		

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
F54T5/HO	4	120	238	2.00 A	1.00	0.42	99	1.4	8	0/-18
	4	277	233	0.86 A	1.00	0.42	99	1.4	8	0/-18
	3	120	185	1.52 A	1.00	0.42	99	1.4	8	0/-18
	3	277	182	0.66 A	1.00	0.42	99	1.4	8	0/-18
	2	120	122	0.99 A	1.00	0.42	99	1.4	8	0/-18
	2	277	120	0.43 A	1.00	0.42	98	1.4	12	0/-18
F54T5/HO	1	277	65	0.24 A	1.00	0.42	95	1.4	14	0/-18
	1	120	64	0.52 A	1.00	0.42	99	1.4	12	0/-18

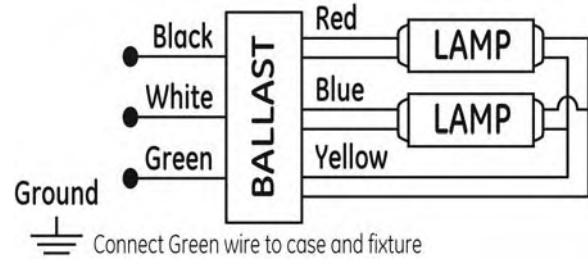
Safety and performance

RoHS Compliant
 UL Type 1 Outdoor
 UL Type CC
 ANSI – C62.41
 UL Type HL
 FCC – CLASS A Non-Consumer
 UL Class P
 cUL Listed
 UL Listed

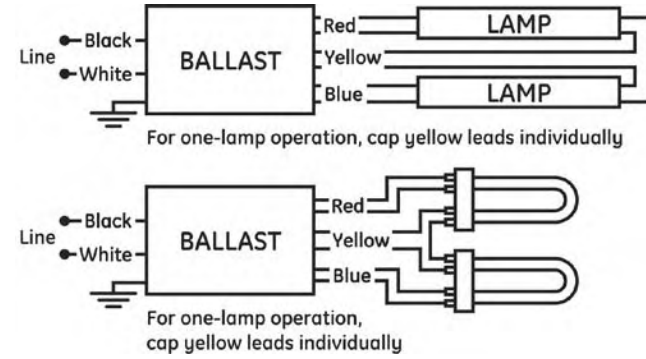
Wiring Diagrams

T5 Fluorescent Ballasts

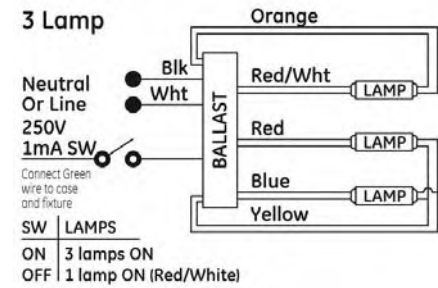
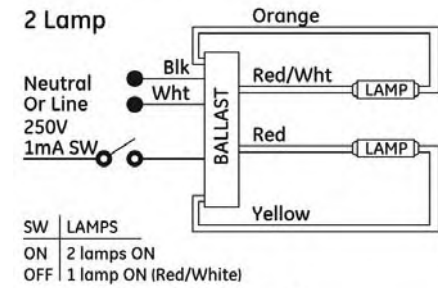
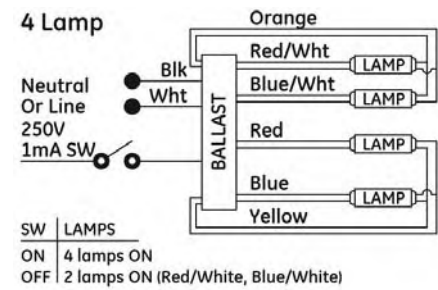
LFL 4a



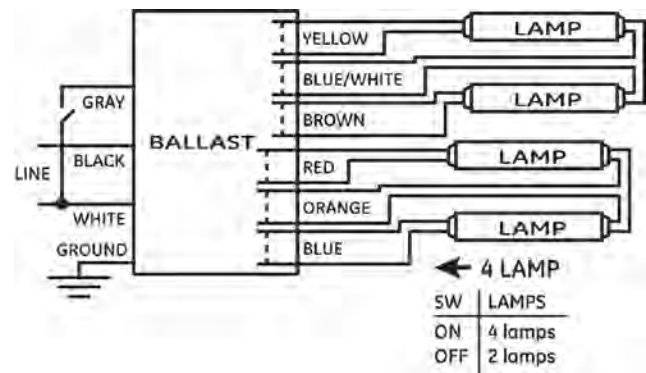
LFL 4b



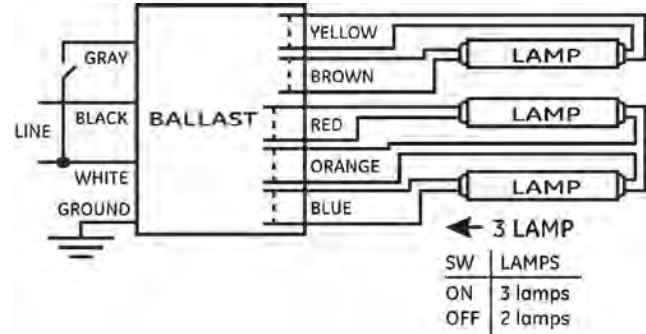
LFL 4c



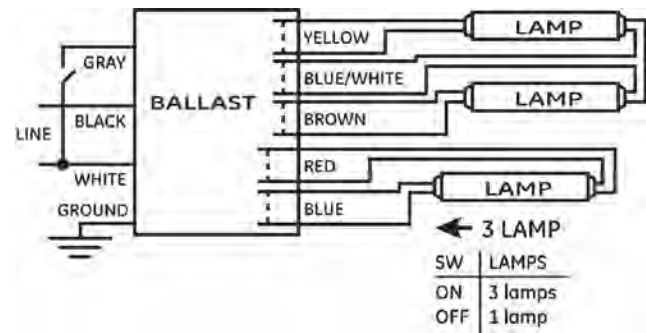
LFL 62-1



LFL 62-2



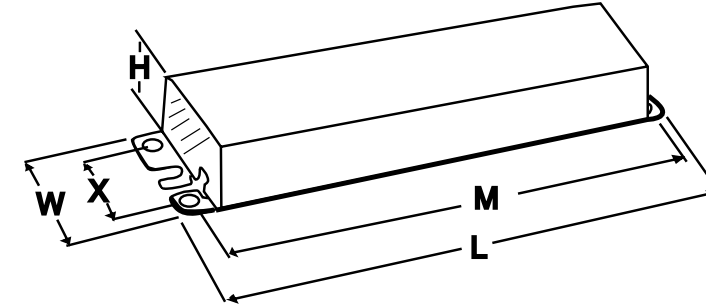
LFL 62-3



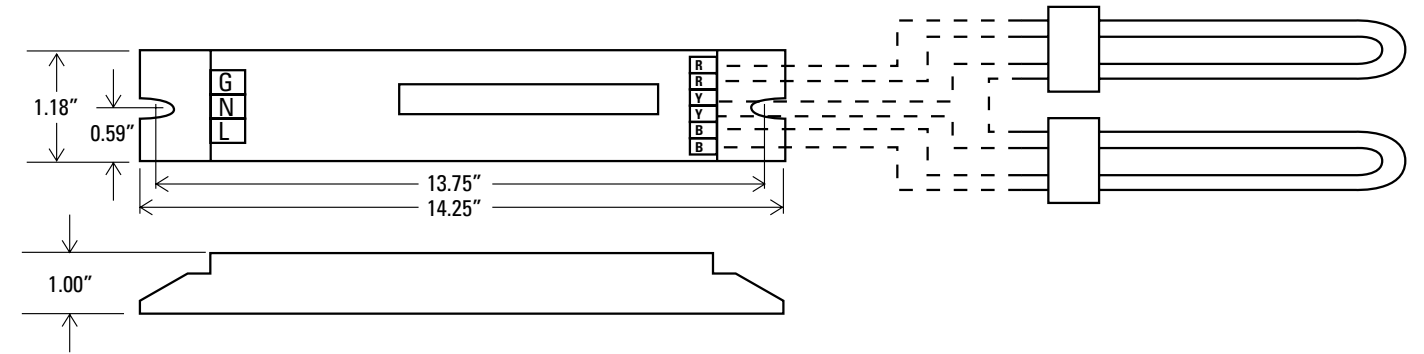
Case Dimensions

T5 Fluorescent Ballasts

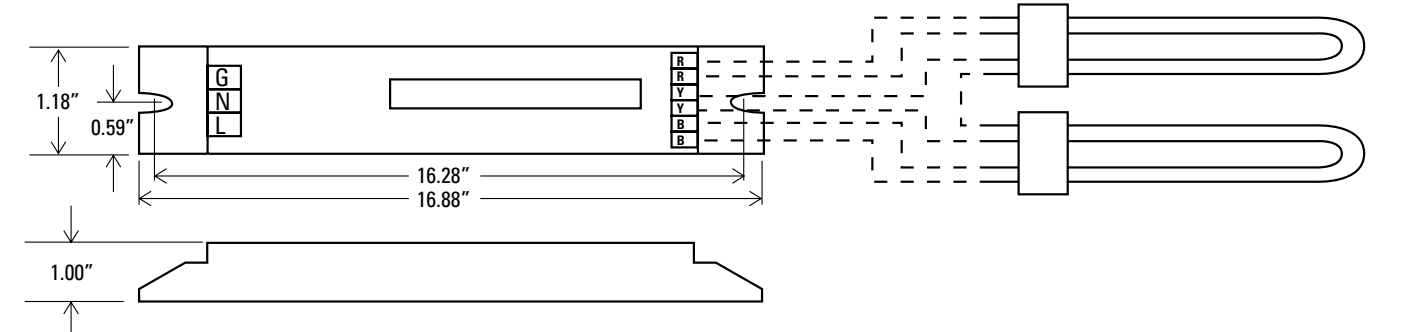
-A Can, -E, -F



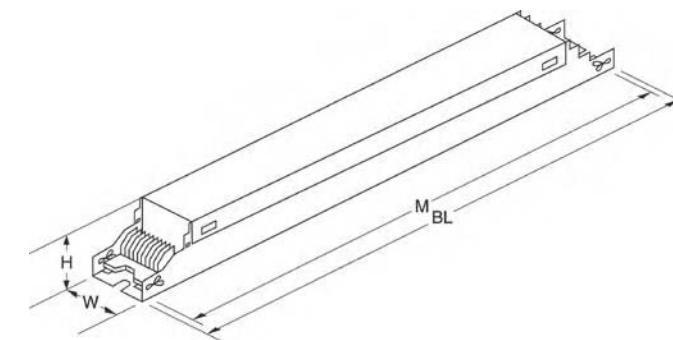
-C Can



-D Can



-J





Understanding T12 Electronic Ballasts

Electronic T12

GE multivolt and dedicated voltage ProLine® T12 high-performance ballasts are designed for replacement of magnetic T12 electronic ballasts during maintenance or retrofits. GE multivolt ProLine® T12 ballasts have the same wiring and mounting requirements as standard magnetic ballasts and provide up to 20% energy savings by simply replacing the ballast.

The DOE ballast ruling effective April 1, 2005, prevents the sale of 4 foot and 8 foot lamp electromagnetic ballasts that operate T12 lamps and do not meet federal ballast efficiency requirements. GE ProLine® T12 electronic ballasts meet the DOE minimum ballast efficiency requirements and also allow facility managers to reduce ballast maintenance inventories by consolidating the number of ballasts needed. GE ProLine® T12 ballasts operate both energy-saving and standard wattage lamps and are also multi-voltage (120-277V). With 2 ballasts, the multi-voltage ProLine® T12 can consolidate over 40 different magnetic ballasts.

Performance Features

- GE240RSMVN and GE240RS120 comply with FCC for residential use
- Low-profile and lightweight housing simplifies installation and reduces transportation costs (GE240 = 1.3 lbs. lighter than magnetic; GE260 = 5.3 lbs. lighter than magnetic)
- Parallel operation — if one lamp fails, others remain lit
- Significantly quieter than magnetic
- High-frequency operation virtually eliminates lamp flickering typical in T12 electromagnetic systems
- Five-year limited ballast warranty

Electromagnetic T12

- Complete line of ballasts for 2-to-8 foot lamps, circline and high-output lamps
- 100% thermally protected
- High-grade lamination steel assures lowest wattage loss
- UL, CSA and/or cUL approved
- 888-GEBALLAST on every ballast
- Two-year limited ballast warranty

Color-Coded Ballast and Outer Box Labels
120V – Yellow
277V – Red

Packaging

- Standard 10 packs
- IP Packs – individually packed with instructions
- DIY – shrink-wrapped and tray-packed with instructions

GE Ballast LFL magnetic nomenclature

G E M - 2 3 2 - H O - R S - 1 2 0 - D I Y

GE Ballast M = Electromagnetic Ballast GEH = HID	Lamp Watts (Primary Lamp) T8 = 32 – 4 foot, 59 – 8 foot T12 = 40 – 4 foot, 60 – 8 foot T12 Electronic = 40 – 2-4 foot, 2 pin 60 – 4-8 foot, 1 pin 96 – 4-8 foot HO, 2 pin T12 Magnetic = 40 – 2-4 foot, 2 pin 96 – 4-8 foot, 2 pin	IS = Instant Start, default if not shown RS = Rapid Start PH = Preheat PT = Preheat/Trigger H = Hybrid D50 = Dimming (min level)	120V – Yellow 277V – Red 220V – Green 240V – Orange 347 – Gray	Pack Type IP = Individual corrugated box per ballast 84T = Pallet bulk pack (84=840, 42=420 ballasts) DIY = Shrinkwrap ballast in tray pack DIY72 = Shrinkwrap ballast in pallet pack (Qty) No extension = 10 pack
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Maximum number of lamps supported by this ballast: 1, 2, 3, 4

HO = High Output
VHO = Very High Output

See page 195 for warranty information.

ProLine® T12 Multivolt 120V – 277V T12 Electronic Ballasts For F20 (2 ft), F30 (3 ft), F34/F40 (4 ft) T12 Lamps

24107 – GE-240-RS-MV-N

ProLine® T12 Multivolt 120V – 277V

2 or 1 – F40 or F34T12 Rapid Start 120 to 277 “N” BF ProLine® T12

General characteristics

Ballast Type	Electronic – Programmed/ Rapid Start
Starting Method	Rapid start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics

Supply Current Frequency	50 Hz/60 Hz
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Order information

Std. pack	Pallet Pack	DIY Pack	IP Pack
24107		24773	

Specifications by lamp and wattage

Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy	Power Factor % (≥)	Crest Factor (≤)	THD (≤)	Min. Starting Temp (°F/°C)
F40T10	2	120	75	0.63 A			99	1.7	7	50 / 10
	2	277	58	0.22 A			93	1.7	16	50 / 10
	1	120	42	0.35 A			99	1.7	10	50 / 10
	1	277	42	0.17 A			88	1.7	16	50 / 10
F40T12	2	120	74	0.67 A	0.89	1.20	99	1.7	7	0 / -18
	2	277	73	0.30 A	0.89	1.21	94	1.7	14	0 / -18
	1	120	48	0.41 A			99	1.7	10	0 / -18
	1	277	48	0.19 A			89	1.7	17	0 / -18
F34T12	2	120	63	0.56 A	0.87	1.38	99	1.7	8	50 / 10
	2	277	62	0.26 A	0.87	1.40	93	1.7	15	0 / -18
	1	120	41	0.35 A			99	1.7	10	50 / 10
	1	277	41	0.17 A			86	1.7	19	50 / 10
F30T12	2	120	60	0.51 A			99	1.7	8	50 / 10
	2	277	58	0.22 A			93	1.7	16	50 / 10
	1	120	37	0.31 A			99	1.7	10	50 / 10
	1	277	37	0.16 A			86	1.7	22	50 / 10

Other compatible lamps: F20T12, F30T12/WM

Safety and performance



97498 – GE240RS120

ProLine® T12 120V – 277V

2 – F40 or F34T12 Rapid Start 120V “N” BF ProLine® T12

General characteristics

Ballast Type	Electronic – Programmed / Rapid Start
Starting Method	Rapid start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	221°F (105°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Passive
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics

Supply Current Frequency	50 Hz/60 Hz
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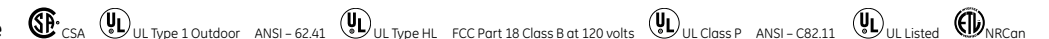
Order information

Std. pack	Pallet Pack	DIY Pack	IP Pack
97498		97499	

Specifications by lamp and wattage

Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy	Power Factor % (≥)	Crest Factor (≤)	THD (≤)	Min. Starting Temp (°F/°C)
F25T12	2	120	73	0.62 A	1.10	1.50	1	1.7	20	32/0
	2	277	73	0.62 A	0.85	1.16	98	1.7	20	32/0
F40T12	2	120	72	0.62 A	0.85	1.18	98	1.7	20	32/0
	2	277	70	0.60 A	0.58	0.82	0.98	1.7	20	32/0
F136W/AP	2	120	63	0.54 A	0.85	1.34	98	1.7	20	32/0
	2	277	62	0.53 A	0.85	1.37	96	1.7	25	32/0
F34T12	2	120	59	0.50 A	0.92	1.55	0.92	1.7	25	32/0
	2	277	59	0.50 A	0.53	0.89	0.95	1.7	0.53	32/0
F12T9	1	120								32/0
F8T9	1	120								32/0
F16T9	1	120								32/0

Safety and performance



See page 195 for warranty information.



ProLine® T12 Multivolt 120V – 277V

T12 Electronic Ballasts For F20 (2 ft), F30 (3 ft), F34/F40 (4 ft) T12, F40T10 Lamps

72110 – GE140RS120-DIY

ProLine® T12 120V

1 - F40 or F34T12 Rapid Start Electronic 120V "N" BF DIY Pack

General characteristics	
Ballast Type	Electronic - Programmed/ Rapid Start
Starting Method	Rapid start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	75°C (167°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	End-of-Life Protection (EOL), Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
Std. pack	Pallet Pack	DIY Pack	IP Pack
		72110	

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
F40T12/40W	1	120	36	0.53 A	0.88	2.44	57	1.58	150	0/-18
F40T12/25W	1	120	36	0.53 A	1.33	3.69	57	1.54	150	0/-18
F34T12/34W	1	120	30	0.45 A	0.88	2.93	55	1.50	150	0/-18
F30T12/30W	1	120	28	0.41 A	0.93	3.32	58	1.51	150	0/-18

Safety and performance Meets FCC Part 18 (Class B) Consumer Limits cUL Listed  UL Listed ANSI 62.41

Dimensions	
Wiring diagram – LFL 2 – see example on page 102	
Case dimensions – Ref Drawing 29 – see page 105	
Length (L)	6.46 in (164.08 mm)
Width (W)	1.37 in (34.80 mm)
Height (H)	1.0 in (25.40 mm)
Mounting dimensions	
Mount Length (M)	6.0 in (152.40 mm)
Mount Width (X or F)	1.37 in (34.80 mm)
Mount Slots (MS)	
Weight	
Exit Type	Side
Remote Mounting Distance to Lamp	
Remote Mounting Wire Gauge	
Lead lengths	
Blue and Red	25 in (635 mm)
White and Black	15 in (381 mm)

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
Std. pack	Pallet Pack	DIY Pack	IP Pack
24108		24776	

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
F96T12	2	120	144	1.21 A	0.87	0.60	99	1.7	6	0/-18
	2	277	140	0.52 A	0.87	0.62	97	1.7	14	0/-18
F84T12	1	120	90	0.76 A			99	1.7	9	0/-18
	1	277	89	0.33 A			96	1.7	20	0/-18
F96T12/WM	2	120	126	1.05 A			99	1.7	8	0/-18
	2	277	124	0.46 A			98	1.7	16	0/-18
F72T12	1	120	77	0.65 A			96	1.7	27	0/-18
	1	277	78	0.29 A			99	1.7	10	0/-18
F96T12/WMP	2	120	115	0.94 A	0.90	0.78	99	1.7	7	0/-18
	2	277	113	0.41 A	0.90	0.79	97	1.7	16	0/-18
F60T12	1	120	72	0.59 A			99	1.7	10	0/-18
	1	277	71	0.27 A			95	1.7	22	0/-18
F48T12	2	120	101	0.87 A			99	1.7	9	0/-18
	2	277	99	0.37 A			97	1.7	17	0/-18
F64T12	1	120	63	0.54 A			99	1.7	11	0/-18
	1	277	63	0.24 A			95	1.7	22	0/-18
F60T12	2	120	98	0.84 A			99	1.7	9	0/-18
	2	277	97	0.36 A			97	1.7	17	0/-18
F40T10	1	120	62	0.53 A			99	1.7	11	0/-18
	1	277	62	0.23 A			95	1.7	22	0/-18
F30T12	2	120	92	0.77 A			99	1.7	9	0/-18
	2	277	91	0.34 A			96	1.7	18	0/-18
F30T12/WMP	1	120	59	0.49 A			99	1.7	12	0/-18
	1	277	59	0.23 A			94	1.7	21	0/-18
F40T12/WMP	2	120	73	0.61 A			99	1.7	10	0/-18
	2	277	73	0.28 A			95	1.7	21	0/-18
F48T12	1	120	48	0.41 A			99	1.7	13	0/-18
	1	277	48	0.20 A			89	1.7	27	0/-18

ProLine® T12 Multivolt 120V – 277V

T12 Electronic Ballasts For T12 4 ft – 8 ft Slimline Lamps

24108 – GE-260-IS-MV-N

ProLine® T12 Multivolt 120V – 277V






2 or 1 – F96T12 Instant Start 120 to 277

General characteristics	
Ballast Type	Electronic - Multivolt Instant Start
Starting Method	Instant start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
Std. pack	Pallet Pack	DIY Pack	IP Pack
24108		24776	

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
F96T12	2	120	144	1.21 A	0.87	0.60	99	1.7	6	0/-18
	2	277	140	0.52 A	0.87	0.62	97	1.7	14	0/-18
F84T12	1	120	90	0.76 A			99	1.7	9	0/-18
	1	277	89	0.33 A			96	1.7	20	0/-18
F96T12/WM	2	120	126	1.05 A			99	1.7	8	0/-18
	2	277	124	0.46 A			98	1.7	16	0/-18
F72T12	1	120	77	0.65 A			96	1.7	27	0/-18
	1	277	78	0.29 A			99	1.7	10	0/-18
F96T12/WMP	2	120	115	0.94 A	0.90	0.78	99	1.7	7	0/-18
	2	277	113	0.41 A	0.90	0.79	97	1.7	16	0/-18
F60T12	1	120	72	0.59 A			99	1.7	10	0/-18
	1	277	71	0.27 A			95	1.7	22	0/-18
F48T12	2	120	109	0.91 A			99	1.7	9	0/-18
	2	277	107	0.40 A			97	1.7	17	0/-18
F64T12	1	120	69	0.58 A			99	1.7	11	0/-18
	1	277	68	0.26 A			95	1.7	22	0/-18
F60T12/WMP	2	120	101	0.87 A			99	1.7	9	0/-18
	2	277	99	0.37 A			97	1.7	17	0/-18
F64T12	1	120	63	0.54 A			99	1.7	11	0/-18
	1	277	63	0.24 A			95	1.7	22	0/-18
F60T12	2	120	98	0.84 A			99	1.7	9	0/-18
	2	277	97	0.36 A			97	1.7	17	0/-18
F40T12	1	120	62	0.53 A			99	1.7	11	0/-18
	1	277	62	0.23 A			95	1.7	22	0/-18
F30T12	2	120	92	0.77 A			99	1.7	9	0/-18
	2	277	91	0.34 A			96	1.7	18	0/-18
F30T12/WMP	1	120	59	0.49 A			99	1.7	12	0/-18
	1	277	59	0.23 A			94	1.7	21	0/-18
F40T12/WMP	2	120	73	0.61 A			99	1.7	10	0/-18
	2	277	73	0.28 A			95	1.7	21	0/-18
F48T12	1	120	48	0.41 A			99	1.7	13	0/-18
	1	277	48	0.20 A			89	1.7	27	0/-18

Safety and performance  UL Type 1 Outdoor  NRCAN  UL Type HL FCC – CLASS A Non-Consumer  UL Class P cUL Listed  UL Listed

24109 – GE-340-RS-MV-N

ProLine® T12 Multivolt 120V – 277V

3 or 2 – F40 or F34T12 Rapid Start 120 to 277 ProLine® T12

General characteristics	
Ballast Type	Electronic - Programmed / Rapid Start
Starting Method	Rapid start
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
Std. pack	Pallet Pack	DIY Pack	IP Pack
24109		24774	

- High-performance electronic ballasts for all general fluorescent applications
- Multi-voltage technology handles voltage from 120 to 277V
- Lightweight, low-profile housing
- Parallel lamp operation means system maintenance is easier to manage

Dimensions	
Wiring diagram – LFL P53 – see example on page 101	
Case dimensions – Ref Drawing 51 – see page 104	
Length (L)	9.5 in (241.30 mm)
Width (W)	2.3 in (60.45 mm)
Height (H)	1.5 in (39.37 mm)
Mounting dimensions	
Mount Length (M)	8.8 in (225.80 mm)
Mount Width (X or F)	1.6 in (42.92 mm)
Mount Slots (MS)	0.3 in (7.92 mm)
Weight	2.40 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	18 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
Blue and Red	33 in (838 mm)
Red/White	33 in (838 mm)
White and Black	25 in (635 mm)
Yellow	48 in (1219 mm)

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
Std. pack	Pallet Pack	DIY Pack	IP Pack
24109		24774	

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
F40T12	3	120	114	0.98 A	0.89	0.78	99	1.7	5	50/10
	3	277	111	0.43 A	0.89	0.80	97	1.7	11	50/10
	2	120	86	0.74 A			99	1.7	6	50/10
	2	277	85	0.33 A			96	1.7	12	50/10
	3	120	107	0.90 A			99	1.7	5	50/10
	3	277	105	0.39 A			97	1.7	12	50/10
F40T10	2	120	80	0.67 A			99	1.7	6	50/10
	2	277	79	0						

T12 Electronic Ballasts T12 High Output For T12 High Output Lamps

80162 – B295SR120HP

T12 High Output 120V Electronic
2 – F96T12HOES RS 120






- Electronic ballasts for all general fluorescent applications

General characteristics	
Ballast Type	Electronic – Programmed / Rapid Start
Starting Method	Rapid start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
Std. pack	Pallet Pack	DIY Pack	IP Pack
80162			

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
F96T12/HO	2	120	208	1.77 A	0.90	0.43	99	1.7	10	-20/-29
F84T12/HO	2	120	185	1.60 A	0.89	0.48	99	1.7	10	-20/-29
F96T8/HO/WM	2	120	174	1.47 A	0.88	0.50	99	1.7	10	60/16
F72T12/HO	2	120	169	1.40 A	0.95	0.56	99	1.7	10	-20/-29

Safety and performance  UL Type 1 Outdoor Canadian Energy Standards  UL Type HL FCC – CLASS A Non-Consumer  UL Class P  CSA  UL Listed

Dimensions	
Wiring diagram – LFL PS2 – see example on page 101	
Case dimensions – Ref Drawing SL – see page 104	
Length (L)	11.75 in (298.45 mm)
Width (W)	3.1 in (79.50 mm)
Height (H)	1.7 in (45.21 mm)
Mounting dimensions	
Mount Length (M)	11.4 in (289.81 mm)
Mount Width (X or F)	2.0 in (50.80 mm)
Mount Slots (MS)	0.3 in (7.92 mm)
Weight	4.00 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	12 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
White and Black	25 in (635 mm)
Blue and Red	46 in (1168 mm)
Yellow	66 in (1676 mm)

T12 Electronic Ballasts T12 High Output For T12 High Output Lamps

72109 – GE296HO-MV-N

T12 High Output ProLine® T12 Multivolt 120V – 277V
2 or 1 – F96T12 HO RS 120 to 277 Multivolt ProLine®

General characteristics	
Ballast Type	Electronic – Programmed/ Rapid Start
Starting Method	Rapid start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	75°C (167°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
Std. pack	Pallet Pack	DIY Pack	IP Pack
72109			

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
F96T12/HO	2	120	196	1.65 A	0.90	0.46	99	1.7	10	0/-18
	2	277	196	0.73 A	0.90	0.46	97	1.7	10	0/-18
F96T12/HO/ES/95W	2	120	104	0.88 A	0.92	0.88	99	1.7	15	0/-18
	1	277	104	0.42 A	0.92	0.88	95	1.7	15	0/-18
F72T12/HO/85W	2	120	164	1.38 A	0.90	0.55	99	1.7	10	0/-18
	2	277	164	0.62 A	0.90	0.55	96	1.7	10	0/-18
F60T12/HO/75W	2	120	154	1.30 A	0.90	0.58	99	1.7	10	0/-18
	2	277	154	0.57 A	0.90	0.58	96	1.7	10	0/-18
F48T12/HO/60W	2	120	132	1.10 A	0.90	0.68	99	1.7	10	0/-18
	2	277	132	0.50 A	0.90	0.68	96	1.7	10	0/-18
HO/60W	2	120	112	0.95 A	0.90	0.80	99	1.7	15	0/-18
	2	277	113	0.43 A	0.90	0.80	95	1.7	15	0/-18

Safety and performance  UL Listed  UL Listed FCC Part 18 (Class A) Non Consumer

80163 – B295SR277HP

T12 High Output 277V Electronic
2 – F96T12 HOES RS 277






- Electronic ballasts for all general fluorescent applications

General characteristics	
Ballast Type	Electronic – Programmed / Rapid Start
Starting Method	Rapid start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70°C (158°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
Std. pack	Pallet Pack	DIY Pack	IP Pack
80163			

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
F96T12/HO	2	277	208	0.76 A	0.90	0.43	99	1.7	10	-20/-29
F84T12/HO	2	277	185	0.69 A	0.91	0.49	99	1.7	10	-20/-29
F96T8/HO/WM	2	277	174	0.63 A	0.88	0.51	99	1.7	10	60/16
F72T12/HO	2	277	169	0.61 A	0.95	0.56	99	1.7	10	-20/-29

Safety and performance  UL Type 1 Outdoor Canadian Energy Standards  UL Type HL FCC – CLASS A Non-Consumer  UL Class P  CSA  UL Listed

Dimensions	
Wiring diagram – LFL PS2 – see example on page 101	
Case dimensions – Ref Drawing SL – see page 104	
Length (L)	11.75 in (298.45 mm)
Width (W)	3.1 in (79.50 mm)
Height (H)	1.7 in (45.21 mm)
Mounting dimensions	
Mount Length (M)	11.4 in (289.81 mm)
Mount Width (X or F)	2.0 in (50.80 mm)
Mount Slots (MS)	0.3 in (7.92 mm)
Weight	4.00 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	18 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
White and Black	25 in (635 mm)
Blue and Red	46 in (1168 mm)
Yellow	66 in (1676 mm)

T12 Magnetic Ballasts

For 2 ft Circleline, Preheat T12 Lamps

89711 – GEM120PH120DIY

T12 Magnetic Ballasts

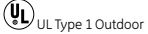



1 – F20T12, F15T8, F1512, F14T8, F18T8, 120V, Magnetic Ballast (200HZ)

General characteristics	
Ballast Type	Magnetic – Rapid Start
Starting Method	Preheat
Lamp Wiring	Series
Line Voltage Regulation (+/-)	5%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	
Sound Rating	A (20-24 decibels)
Additional Info	

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
Std. pack	Pallet Pack	DIY Pack	IP Pack
		89711	

Specifications by lamp and wattage											
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)	
F14T8	1	120	18	0.31 A	0.84	4.66	48	1.6	10	50 / 10	
F15T12	1	120	18	0.31 A	0.95	5.27	48	1.6	10	50 / 10	
F15T8	1	120	18	0.28 A	0.82	4.55	52	1.6	10	50 / 10	
F18T8	1	120	18	0.25 A	0.65	3.61	57	1.6	10	50 / 10	
F20T12	1	120	18	0.26 A	0.69	3.83	59	1.6	10	50 / 10	

Safety and performance   cUL Listed  

- Magnetic ballast construction for all general fluorescent lighting
- Extends lamp life in frequently switched applications
- Color-coded ballast and package labels reduce misapplication errors (120V Yellow, 277V Red)

Dimensions	
Wiring diagram – LFL 21 – see example on page 101	
Case dimensions – Ref Drawing 2 – see page 104	
Length (L)	3.0 in (77.01 mm)
Width (W)	1.25 in (31.75 mm)
Height (H)	1.75 in (44.45 mm)
Mounting dimensions	
Bracket Length (BL)	3.0 in (77.01 mm)
Mount Length (M)	2.75 in (69.85 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.2 in (5.58 mm)
Weight	0.65 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	10 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	Length (± 1 in)
Black	9 in (229 mm)

T12 Magnetic Ballasts

For 2 ft, Circleline, Preheat T12 Lamps

89720 – GEM1FC16T9RS120

T12 Magnetic Ballasts

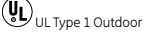



2 – FC12T9, FC16T9, FC8T9, FC12T9, 120V, Magnetic (726VLHWSTCP)

General characteristics	
Ballast Type	Magnetic – Rapid Start
Starting Method	Rapid start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	5%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
Std. pack	Pallet Pack	DIY Pack	IP Pack
		89720	

Specifications by lamp and wattage											
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)	
F16T9	1	120	30	0.55 A	0.56	1.86	0.45	1.5	10	50 / 10	
F12T9	1	120		0.46 A	0.45		0.54	1.5	10	50 / 10	

Safety and performance    cUL Listed 

86227 – GEM1FC8T9RS120IP

T12 Magnetic Ballasts

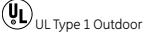
1 – FC8T9, FC6T9, RS, 120V, Magnetic Ballast (547RSWSTCP)

General characteristics	
Ballast Type	Magnetic – Rapid Start
Starting Method	Rapid start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	5%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
Std. pack	Pallet Pack	DIY Pack	IP Pack
		89722	86227

Specifications by lamp and wattage											
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)	
FC8T9	1	120	25	0.58 A	0.80	3.20	50	1.6	10	50 / 10	
FC6T9	1	120	24	0.63 A	0.81	3.37	50	1.6	10	50 / 10	

Safety and performance    cUL Listed 

- Magnetic ballast construction for all general fluorescent lighting
- Extends lamp life in frequently switched applications
- Color-coded ballast and package labels reduce misapplication errors (120V Yellow, 277V Red)

Dimensions	
Wiring diagram – LFL 037 – see example on page 102	
Case dimensions – Ref Drawing 10 – see page 105	
Length (L)	6.5 in (166.62 mm)
Width (W)	2.3 in (60.45 mm)
Height (H)	1.6 in (42.92 mm)
Mounting dimensions	
Bracket Length (BL)	6.5 in (166.62 mm)
Mount Length (M)	6.0 in (152.40 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.30 in (7.87 mm)
Weight	2.70 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	10 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	Length (± 1 in)
White	12 in (305 mm)
Black	12 in (305 mm)

89712 – GEM120TC120DIY

T12 Magnetic Ballasts

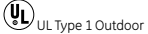



1 – F20T12, F15T8, F15T12, F14T12, 120V, Magnetic Ballast (546BTCP)

General characteristics	
Ballast Type	Magnetic – Rapid Start
Starting Method	Trigger start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	5%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
Std. pack	Pallet Pack	DIY Pack	IP Pack
		89712	

Specifications by lamp and wattage											
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)	
F20T12	1	120	29	0.59 A	0.80	2.75	40	1.5	10	50 / 10	
F15T8	1	120	28	0.59 A	0.96	3.42	39	1.6	10	50 / 10	
F14T12	1	120	27	0.62 A	0.86	3.18	36	1.6	10	50 / 10	
F15T12	1	120	26	0.59 A	1.01	3.88	37	1.5	10	50 / 10	

Safety and performance    cUL Listed 

- Magnetic ballast construction for all general fluorescent lighting
- Extends lamp life in frequently switched applications
- Color-coded ballast and package labels reduce misapplication errors (120V Yellow, 277V Red)

Dimensions	
Wiring diagram – LFL 21 – see example on page 101	
Case dimensions – Ref Drawing 9 – see page 105	
Length (L)	6.4 in (163.57 mm)
Width (W)	1.9 in (48.51 mm)
Height (H)	1.9 in (49.27 mm)
Mounting dimensions	
Bracket Length (BL)	6.4 in (163.57 mm)
Mount Length (M)	6.0 in (152.40 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
Weight	2.10 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	10 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	Length (± 1 in)
Black	10 in (254 mm)
White	17 in (432 mm)
Blue	18 in (457 mm)
Red	14 in (356 mm)

- Magnetic ballast construction for all general fluorescent lighting
- Extends lamp life in frequently switched applications
- Color-coded ballast and package labels reduce misapplication errors (120V Yellow, 277V Red)

Dimensions	
Wiring diagram – LFL 29 – see example on page 102	
Case dimensions – Ref Drawing 9 – see page 105	
Length (L)	6.4 in (163.57 mm)
Width (W)	1.9 in (48.51 mm)
Height (H)	1.9 in (49.27 mm)
Mounting dimensions	
Bracket Length (BL)	6.4 in (163.57 mm)
Mount Length (M)	6.0 in (152.40 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
Weight	2.10 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	10 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	Length (± 1 in)
Black	10 in (254 mm)
Black and White	12 in (305 mm)
White	10 in (254 mm)
Blue	9 in (229 mm)
Red	9 in (229 mm)

T12 Magnetic Ballasts

For 2 ft, Circleline, Preheat T12 Lamps

89717 – GEM1FC12T9RS120

T12 Magnetic Ballasts





2 – FC12T9, RS, 120V, Magnetic Ballast (449LRWSTCP)

General characteristics	
Ballast Type	Magnetic – Rapid Start
Starting Method	Rapid start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	5%
Ambient Temperature (MAX)	104°F (40°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
Std. pack	Pallet Pack	DIY Pack	IP Pack
89717			

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
FC8T9/FC12T9	2	120	49	0.70 A	0.65	1.33	59	1.7	10	50/10

Safety and performance    

- Magnetic ballast construction for all general fluorescent lighting
- Extends lamp life in frequently switched applications
- Color coded ballast and package labels reduce misapplication errors (120V Yellow, 277V Red)

Dimensions	
Wiring diagram – LFL 037 – see example on page 102	
Case dimensions – Ref Drawing D10 – see page 105	
Length (L)	11.7 in (297.18 mm)
Width (W)	3.1 in (78.74 mm)
Height (H)	1.8 in (45.72 mm)
Mounting dimensions	
Bracket Length (BL)	11.7 in (297.18 mm)
Mount Length (M)	11.3 in (287.02 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.30 in (7.62 mm)
Weight	2.70 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	10 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
Length (± 1 in)	
White	10 in (254 mm)
White and Black	12 in (305 mm)
White	10 in (254 mm)
Blue	9 in (229 mm)
Red	9 in (229 mm)

80819 – GEM220TS120DIY

T12 Magnetic Ballasts




2 – F20T12, F15T8, F15T12, F14T12, 120V, Magnetic Ballast (447LRVLHTCP)

General characteristics	
Ballast Type	Magnetic – Rapid Start
Starting Method	Trigger start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	5%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
Std. pack	Pallet Pack	DIY Pack	IP Pack
		80819	

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
F20T12	2	120	37	0.59 A	0.68	1.83	52	1.5	15	50/10
F15T12	2	120	36	0.63 A	0.50	1.38	48	1.4	15	50/10
F15T8	2	120	36	0.60 A	0.64	1.77	50	1.5	15	50/10

Safety and performance     

- Magnetic ballast construction for all general fluorescent lighting
- Extends lamp life in frequently switched applications
- Color-coded ballast and package labels reduce misapplication errors (120V Yellow, 277V Red)

Dimensions			
Wiring diagram – LFL PS2 – see example on page 101			
Case dimensions – Ref Drawing 10 – see page 105			
Length (L)	6.5 in (166.62 mm)		
Width (W)	2.3 in (60.45 mm)		
Height (H)	1.6 in (42.92 mm)		
Mounting dimensions			
Bracket Length (BL)	6.5 in (166.62 mm)		
Mount Length (M)	6.0 in (152.40 mm)		
Mount Width (X or F)			
Mount Slots (MS)	0.30 in (7.87 mm)		
Weight	2.50 lbs		
Exit Type	Side		
Remote Mounting Distance to Lamp	10 ft		
Remote Mounting Wire Gauge	18 AWG		
Lead lengths			
Qty			
Exit			
Length (± 1 in)			
Black	1	Left	10 in (254 mm)
White	1	Left	15 in (381 mm)
Blue and Red	2	Right	15 in (381 mm)
Yellow	2	Right	18 in (457 mm)

T12 Magnetic Ballasts

For F30, F34/40 (4 ft) T12 Lamps

89714 – GEM140HRS120DIY

T12 Magnetic Ballasts

1 – F40T12, F40T12, 120V, Magnetic Ballast (412LSLHTCP)

General characteristics	
Ballast Type	Magnetic – Rapid Start
Starting Method	Rapid start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	5%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
Std. pack	Pallet Pack	DIY Pack	IP Pack
		89714	

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
F40T10	1	120	50	0.43 A	1.00	2.00	97	1.6	15	50/10
F40T12	1	120	50	0.43 A	1.00	2.00	97	1.6	15	50/10
F34T12	1	120	43	0.39 A	0.97	2.25	93	1.6	15	60/16
F40T12/WMP	1	120					97	1.6	15	50/10

Safety and performance     

- Magnetic ballast construction for all general fluorescent lighting
- Extends lamp life in frequently switched applications
- Color-coded ballast and package labels reduce misapplication errors (120V Yellow, 277V Red)
- Energy saving modified rapid start

Dimensions	
Wiring diagram – LFL 2 – see example on page 102	
Case dimensions – Ref Drawing 5T – see page 104	
Length (L)	9.5 in (241.30 mm)
Width (W)	2.3 in (60.45 mm)
Height (H)	1.5 in (39.37 mm)
Mounting dimensions	
Bracket Length (BL)	
Mount Length (M)	8.8 in (225.80 mm)
Mount Width (X or F)	1.6 in (42.92 mm)
Mount Slots (MS)	0.3 in (7.92 mm)
Weight	3.40 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	10 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
Length (± 1 in)	
White and Black	22 in (559 mm)
Blue	26 in (660 mm)
Red	34 in (864 mm)

89709 – GEM140RS120DIY

T12 Magnetic Ballasts


1 – F40T12, F30T12, F48/25W, 120V, Magnetic Ballast (413CTCP)

General characteristics	
Ballast Type	Magnetic – Rapid Start
Starting Method	Rapid start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	5%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
Std. pack	Pallet Pack	DIY Pack	IP Pack
		89709	

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
F40T12	1	120	36	0.63 A	0.60	1.66	47	1.5	15	50/10
F30T12	1	120	35	0.70 A	0.67	1.91	42	1.5	15	50/10
F48T12/25W	1	120	32	0.59 A	0.96	3.00	45	1.5	15	50/10
F34T12	1	120	31	0.65 A	0.58	1.87	40	1.5	15	50/10

Safety and performance     

- Magnetic ballast construction for all general fluorescent lighting
- Extends lamp life in frequently switched applications
- Color-coded ballast and package labels reduce misapplication errors (120V Yellow, 277V Red)

Dimensions	
Wiring diagram – LFL 8 – see example on page 102	
Case dimensions – Ref Drawing 9 – see page 105	
Length (L)	6.4 in (163.57 mm)
Width (W)	1.9 in (48.51 mm)
Height (H)	1.9 in (49.27 mm)
Mounting dimensions	
Bracket Length (BL)	6.4 in (163.57 mm)
Mount Length (M)	6.0 in (152.40 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
Weight	2.10 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	10 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
Length (± 1 in)	
Black	10 in (254 mm)
Red	30 in (762 mm)
White	36 in (914 mm)
Blue	36 in (914 mm)

T12 Magnetic Ballasts

For F30, F34/40 (4 ft) T12 Lamps

80644 – GEM230RS120DIY

T12 Magnetic Ballasts

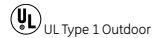




2 – F30T12, 120V, Magnetic Ballast (573LTCP)

General characteristics	
Ballast Type	Magnetic – Rapid Start
Starting Method	Rapid start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	5%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
Std. pack	Pallet Pack	DIY Pack	IP Pack
		80644	

Specifications by lamp and wattage											
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)	
F30T12	2	120	64	0.55 A	0.80	1.25	95	1.7	20	50 / 10	
F30T12/WMM	2	120	54	0.45 A	0.75	1.38	95	1.7	20	60 / 16	

Safety and performance     

- Magnetic ballast construction for all general fluorescent lighting
- Extends lamp life in frequently switched applications
- Color-coded ballast and package labels reduce misapplication errors (120V Yellow, 277V Red)

Dimensions	
Wiring diagram – LFL PS2 – see example on page 101	
Case dimensions – Ref Drawing ST – see page 104	
Length (L)	9.5 in (241.30 mm)
Width (W)	2.3 in (60.45 mm)
Height (H)	1.5 in (39.37 mm)
Mounting dimensions	
Bracket Length (BL)	
Mount Length (M)	8.8 in (225.80 mm)
Mount Width (X or F)	1.6 in (42.92 mm)
Mount Slots (MS)	0.3 in (7.92 mm)
Weight	3.60 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	10 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
Blue and Red	Length (± 1 in) 22 in (559 mm)
White and Black	20 in (508 mm)
Yellow	30 in (762 mm)

T12 Magnetic Ballasts

For F30, F34/40 (4 ft) T12 Lamps

86139 – GEM240RS120IP

T12 Magnetic Ballasts

2 – F40T12, RS, 120V, Magnetic Ballast (446LSLHTCP)

General characteristics	
Ballast Type	Magnetic – Rapid Start
Starting Method	Rapid start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	5%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
Std. pack	Pallet Pack	DIY Pack	IP Pack
		46958	86139

Specifications by lamp and wattage											
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)	
F40T10	2	120	87	0.73 A	0.95	1.09	98	1.6	20	50 / 10	
F40T12	2	120	87	0.73 A	0.95	1.09	98	1.6	20	50 / 10	
F40T12/WMM	2	120	73	0.64 A	0.89	1.21	95	1.7	20	60 / 16	

Safety and performance      

- Magnetic ballast construction for all general fluorescent lighting
- Extends lamp life in frequently switched applications
- Color-coded ballast and package labels reduce misapplication errors (120V Yellow, 277V Red)

Dimensions	
Wiring diagram – LFL PS2 – see example on page 101	
Case dimensions – Ref Drawing ST – see page 104	
Length (L)	9.5 in (241.30 mm)
Width (W)	2.3 in (60.45 mm)
Height (H)	1.5 in (39.37 mm)
Mounting dimensions	
Bracket Length (BL)	
Mount Length (M)	8.8 in (225.80 mm)
Mount Width (X or F)	1.6 in (42.92 mm)
Mount Slots (MS)	0.3 in (7.92 mm)
Weight	3.40 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	10 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
White and Black	Length (± 1 in) 12 in (305 mm)
Blue and Red	12 in (305 mm)
Yellow	12 in (305 mm)

89710 – GEM240HRS120DIY

T12 Magnetic Ballasts

2 – F40T12, F40T12, 120V, Magnetic Ballast (420LTCP)

General characteristics	
Ballast Type	Magnetic – Rapid Start
Starting Method	Modified rapid start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	5%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
Std. pack	Pallet Pack	DIY Pack	IP Pack
		89710	

Specifications by lamp and wattage											
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)	
F40T10	2	120	72	0.62 A	0.84	1.16	95	1.6	20	50 / 10	
F40T12	2	120	72	0.62 A	0.84	1.16	95	1.6	20	50 / 10	
F40T12/WMP	2	120					95	1.6	20	50 / 10	

Safety and performance    

- Magnetic ballast construction for all general fluorescent lighting
- Extends lamp life in frequently switched applications
- Color-coded ballast and package labels reduce misapplication errors (120V Yellow, 277V Red)
- Energy saving modified rapid start

Dimensions	
Wiring diagram – LFL PS2 – see example on page 101	
Case dimensions – Ref Drawing ST – see page 104	
Length (L)	9.5 in (241.30 mm)
Width (W)	2.3 in (60.45 mm)
Height (H)	1.5 in (39.37 mm)
Mounting dimensions	
Bracket Length (BL)	
Mount Length (M)	8.8 in (225.80 mm)
Mount Width (X or F)	1.6 in (42.92 mm)
Mount Slots (MS)	0.3 in (7.92 mm)
Weight	3.40 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	10 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
White and Black	Length (± 1 in) 12 in (305 mm)
Blue and Red	12 in (305 mm)
Yellow	12 in (305 mm)

86124 – GEM240RS277IP

T12 Magnetic Ballasts

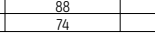




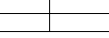
2 – F40T12, RS, 277V, Magnetic Ballast (443LSLHTCP)

General characteristics	
Ballast Type	Magnetic – Rapid Start
Starting Method	Rapid start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	5%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
Std. pack	Pallet Pack	DIY Pack	IP Pack
		89713	86124

Specifications by lamp and wattage											
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)	
F40T10	2	277	88	0.32 A	0.95	1.07	98	1.6	20	50 / 10	
F40T12	2	277	88	0.32 A	0.95	1.07	98	1.6	20	50 / 10	
F40T12/WMM	2	277	74	0.27 A	0.88	1.18	97	1.7	20	60 / 16	

Safety and performance      

- Magnetic ballast construction for all general fluorescent lighting
- Extends lamp life in frequently switched applications
- Color-coded ballast and package labels reduce misapplication errors (120V Yellow, 277V Red)

Dimensions	
Wiring diagram – LFL PS2 – see example on page 101	
Case dimensions – Ref Drawing ST – see page 104	
Length (L)	9.5 in (241.30 mm)
Width (W)	2.3 in (60.45 mm)
Height (H)	1.5 in (39.37 mm)
Mounting dimensions	
Bracket Length (BL)	
Mount Length (M)	8.8 in (225.80 mm)
Mount Width (X or F)	1.6 in (42.92 mm)
Mount Slots (MS)	0.3 in (7.92 mm)
Weight	3.40 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	10 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
White and Black	Length (± 1 in) 12 in (305 mm)
Blue and Red	12 in (305 mm)
White and Black	12 in (305 mm)
Yellow	12 in (305 mm)
Yellow	2 in (51 mm)

T12 Magnetic Ballasts

For F30, F34/40 (4 ft) T12 Lamps

86341 – GEM240RS220IP

T12 Magnetic Ballasts

2 – F40T12, F40T10 220V Magnetic Ballast (754LTCP)

General characteristics	
Ballast Type	Magnetic - Rapid Start
Starting Method	Rapid start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	5%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	High
Power Factor Correction	
Sound Rating	A (20-24 decibels)
Additional Info	Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
Std. pack	Pallet Pack	DIY Pack	IP Pack
			86341

Specifications by lamp and wattage

Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
F40T12	2	220	40		0.70	2	90	1.7	32	50 / 10

Safety and performance   FCC - CLASS A Non-Consumer  cUL Listed  

- Magnetic ballast construction for all general fluorescent lighting
- Extends lamp life in frequently switched applications
- Color-coded ballast and package labels reduce misapplication errors (120V Yellow, 277V Red)

Dimensions	
Wiring diagram – LFL P52 – see example on page 101	
Case dimensions – Ref Drawing 10 – see page 105	
Length (L)	9.5 in (241.30 mm)
Width (W)	2.3 in (60.45 mm)
Height (H)	1.5 in (39.37 mm)
Mounting dimensions	
Bracket Length (BL)	8.8 in (225.80 mm)
Mount Length (M)	1.6 in (42.92 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.3 in (7.92 mm)
Weight	2.04 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	10 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
Black	12 in (305 mm)
Blue and Red	12 in (305 mm)
Black and White	12 in (305 mm)
Yellow	12 in (305 mm)
Yellow	2 in (51 mm)

T12 Magnetic Ballasts

For T12 4 ft – 8 ft Slimline Lamps

86372 – GEM196IS120IP

T12 Magnetic Ballasts

1 – F96T12, IS, 120, Magnetic Ballast (822BRTCP)





General characteristics	
Ballast Type	Magnetic - Standard Instant Start
Starting Method	Instant start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	5%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	
Sound Rating	B (25-30 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
Std. pack	Pallet Pack	DIY Pack	IP Pack
		89719	86372

Specifications by lamp and wattage

Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
F96T12	1	120	93	0.83 A	0.75	0.80	93	1.85	30	50 / 10
F72T12	1	120	78	0.73 A	0.80	1.02	90	1.85	30	50 / 10
F96T12/WM	1	120	78	0.73 A	0.71	0.91	90	2.00	30	60 / 16

Safety and performance    cUL Listed 

- Magnetic ballast construction for all general fluorescent lighting
- Instant start ballast for long lamp starting cycles and low initial cost
- Color-coded ballast and package labels reduce misapplication errors (120V Yellow, 277V Red)

Dimensions	
Wiring diagram – LFL 014 – see example on page 103	
Case dimensions – Ref Drawing D10 – see page 105	
Length (L)	9.4 in (240.10 mm)
Width (W)	3.0 in (78.58 mm)
Height (H)	1.7 in (45.24 mm)
Mounting dimensions	
Bracket Length (BL)	
Mount Length (M)	8.8 in (225.82 mm)
Mount Width (X or F)	1.69 in (42.86 mm)
Mount Slots (MS)	0.3 in (7.92 mm)
Weight	6.50 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	10 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
Black/White	8 in (203 mm)
Red	44 in (1118 mm)
White	68 in (1727 mm)
White and Black	72 in (1829 mm)
Blue	48 in (1219 mm)

86381 – GEM196IS277IP

T12 Magnetic Ballasts

1 – F96T12, IS, 277, Magnetic Ballast (828BRTCP)





General characteristics	
Ballast Type	Magnetic - Standard Instant Start
Starting Method	Instant start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	5%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	
Sound Rating	B (25-30 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
Std. pack	Pallet Pack	DIY Pack	IP Pack
			86381

Specifications by lamp and wattage

Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
F96T12	1	277	93	0.36 A	0.75	0.80	90	1.8	30	50 / 10
F72T12	1	277	78	0.30 A	0.80	1.02	90	1.8	30	50 / 10
F96T12/WM	1	277	78	0.30 A	0.71	0.91	90	2.0	30	60 / 16

Safety and performance    cUL Listed 

- Magnetic ballast construction for all general fluorescent lighting
- Instant start ballast for long lamp starting cycles and low initial cost
- Color-coded ballast and package labels reduce misapplication errors (120V Yellow, 277V Red)

Dimensions			
Wiring diagram – LFL 014 – see example on page 103			
Case dimensions – Ref Drawing D10 – see page 105			
Length (L)	9.4 in (240.10 mm)		
Width (W)	3.0 in (78.58 mm)		
Height (H)	1.7 in (45.24 mm)		
Mounting dimensions			
Bracket Length (BL)			
Mount Length (M)	8.8 in (225.82 mm)		
Mount Width (X or F)	1.69 in (42.86 mm)		
Mount Slots (MS)	0.3 in (7.92 mm)		
Weight	6.50 lbs		
Exit Type	Side		
Remote Mounting Distance to Lamp	10 ft		
Remote Mounting Wire Gauge	18 AWG		
Lead lengths			
Black/White	Qty	Exit	Length (± 1 in)
White and Black	1	Left	8 in (203 mm)
White	1	Left	68 in (1727 mm)
Blue	1	Right	48 in (1219 mm)
Red	1	Right	44 in (1118 mm)

T12 Magnetic Ballasts

For T12 4 ft – 8 ft Slimline Lamps

86360 – GEM296IS120IP

T12 Magnetic Ballasts

2 – F96T12, IS, 120V, Magnetic Ballast, (806SLHTCP)

General characteristics	
Ballast Type	Magnetic – Standard Instant Start
Starting Method	Instant start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	5%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	
Sound Rating	B (25-30 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
Std. pack	Pallet Pack	DIY Pack	IP Pack
		46965	86360

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
F96T12	2	120	158	1.33 A	0.95	0.60	96	1.9	30	50 / 10
F72T12	2	120	124	1.11 A	0.94	0.75	93	1.8	30	50 / 10
F96T12/WM	2	120	120	1.02 A	0.87	0.72	95	1.9	30	60 / 16
F48T12	2	120	98	1.04 A	0.95	0.96	87	1.9	30	50 / 10

Safety and performance      

- Magnetic ballast construction for all general fluorescent lighting
- Instant start ballast for long lamp starting cycles and low initial cost
- Color-coded ballast and package labels reduce misapplication errors (120V Yellow, 277V Red)

Dimensions	
Wiring diagram – LFL 39 – see example on page 103	
Case dimensions – Ref Drawing 15 – see page 105	
Length (L)	11.6 in (296.92 mm)
Width (W)	3.0 in (78.48 mm)
Height (H)	1.8 in (45.97 mm)
Mounting dimensions	
Bracket Length (BL)	11.6 in (296.92 mm)
Mount Length (M)	11.25 in (285.75 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.3 in (7.87 mm)
Weight	7.70 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	10 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
Black	Length (± 1 in) 12 in (305 mm)
White	12 in (305 mm)
Blue and Red	12 in (305 mm)

T12 Magnetic Ballasts

For T12 High Output Lamps

86164 – GEM296HORS120IP

T12 Magnetic Ballasts

2 – F96T12HO, F96T8HO, F72T12HO, RS, 120V, Magnetic Ballast (480SLHTCP)

General characteristics	
Ballast Type	Magnetic – Rapid Start
Starting Method	Rapid start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	5%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	
Sound Rating	C (31-36 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
Std. pack	Pallet Pack	DIY Pack	IP Pack
		89718	86164

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
F96T12/HO	2	120	256	2.14 A	0.99	0.38	98	1.7	20	-20 / -29
F96T8/HO/WM	2	120	221	1.94 A	0.94	0.42	95	1.8	20	60 / 16
F72T12/HO	2	120	208	1.81 A	0.95	0.45	97	1.8	20	-20 / -29

Safety and performance      

- Magnetic ballast construction for all general fluorescent lighting
- Extends lamp life in frequently switched applications
- Color-coded ballast and package labels reduce misapplication errors (120V Yellow, 277V Red)

Dimensions	
Wiring diagram – LFL PS2 – see example on page 101	
Case dimensions – Ref Drawing 29 – see page 105	
Length (L)	11.75 in (298.45 mm)
Width (W)	3.1 in (80.16 mm)
Height (H)	1.5 in (39.70 mm)
Mounting dimensions	
Bracket Length (BL)	
Mount Length (M)	11.1 in (283.97 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.3 in (7.92 mm)
Weight	10.90 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	10 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
White and Black	Length (± 1 in) 24 in (610 mm)
Blue and Red	46 in (1168 mm)
White and Black	18 in (457 mm)
Yellow	65 in (1651 mm)
Blue and Red	48 in (1219 mm)
Yellow	72 in (1829 mm)

86379 – GEM296IS277IP

T12 Magnetic Ballasts

2 – F96T12, IS, 277V, Magnetic Ballast (827SLHTCP)

General characteristics	
Ballast Type	Magnetic – Standard Instant Start
Starting Method	Instant start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	5%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	
Sound Rating	B (25-30 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
Std. pack	Pallet Pack	DIY Pack	IP Pack
		89715	86379

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
F96T12	2	277	158	0.60 A	0.93	0.58	96	1.7	30	50 / 10
F72T12	2	277	125	0.47 A	0.95	0.76	94	1.8	30	50 / 10
F96T12/WM	2	277	120	0.45 A	0.93	0.75	95	1.9	30	60 / 16
F48T12	2	277	98	0.41 A	0.95	0.96	86	1.8	30	50 / 10

Safety and performance      

- Magnetic ballast construction for all general fluorescent lighting
- Instant start ballast for long lamp starting cycles and low initial cost
- Color-coded ballast and package labels reduce misapplication errors (120V Yellow, 277V Red)

Dimensions			
Wiring diagram – LFL 025 – see example on page 103			
Case dimensions – Ref Drawing 15 – see page 105			
Length (L)	11.6 in (296.92 mm)		
Width (W)	3.0 in (78.48 mm)		
Height (H)	1.8 in (45.97 mm)		
Mounting dimensions			
Bracket Length (BL)	11.6 in (296.92 mm)		
Mount Length (M)	11.25 in (285.75 mm)		
Mount Width (X or F)			
Mount Slots (MS)	0.3 in (7.87 mm)		
Weight	7.70 lbs		
Exit Type	Side		
Remote Mounting Distance to Lamp	10 ft		
Remote Mounting Wire Gauge	18 AWG		
Lead lengths			
White and Black	Qty	Exit	Length (± 1 in)
Yellow	1	Left	12 in (305 mm)
Blue and Red	2	Left	12 in (305 mm)
	1	Right	12 in (305 mm)

86171 – GEM296HORS277IP

T12 Magnetic Ballasts

2 – F96T12HO, F96T8HO, RS, 277V, Magnetic Ballast (487SLHTCP)

General characteristics	
Ballast Type	Magnetic – Rapid Start
Starting Method	Rapid start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	5%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	
Sound Rating	C (31-36 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
Std. pack	Pallet Pack	DIY Pack	IP Pack
			86171

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
F96T12/HO	2	277	248	0.92 A	0.97	0.39	98	1.7	20	-20 / -29
F96T8/HO/WM	2	277	214	0.80 A	0.95	0.44	94	1.8	20	60 / 16
F72T12/HO	2	277	202	0.78 A	0.97	0.48	95	1.8	20	-20 / -29

Safety and performance      

- Magnetic ballast construction for all general fluorescent lighting
- Extends lamp life in frequently switched applications
- Color-coded ballast and package labels reduce misapplication errors (120V Yellow, 277V Red)

Dimensions	
Wiring diagram – LFL PS2 – see example on page 101	
Case dimensions – Ref Drawing 29 – see page 105	
Length (L)	11.75 in (298.45 mm)
Width (W)	3.1 in (80.16 mm)
Height (H)	1.5 in (39.70 mm)
Mounting dimensions	
Bracket Length (BL)	
Mount Length (M)	11.1 in (283.97 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.3 in (7.92 mm)
Weight	10.90 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	10 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
White and Black	Length (± 1 in) 24 in (610 mm)
Blue and Red	46 in (1168 mm)
White and Black	18 in (457 mm)
Yellow	65 in (1651 mm)
Blue and Red	48 in (1219 mm)
Yellow	72 in (1829 mm)

T12 Magnetic Ballasts

For T12 High Output Lamps

80664 – 493B2

T12 Magnetic Ballasts

2 – F73T12/BL/HO, Suntan, 120, Magnetic Ballast

General characteristics	
Ballast Type	Electronic – Standard Instant Start
Starting Method	Rapid start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	Passive
Sound Rating	A (20-24 decibels)
Additional Info	Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
80664			

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp. (°F/°C)
F72T12/HO	2	120	180	1.6 A	1.00	0.55	90	1.7	25	50/10
F73T12/HO	2	120	180	1.6 A	1.00	0.55	90	1.7	25	50/10

Safety and performance UL Type 1 Outdoor UL Type HL FCC - CLASS A Non-Consumer UL Class P CSA UL Listed

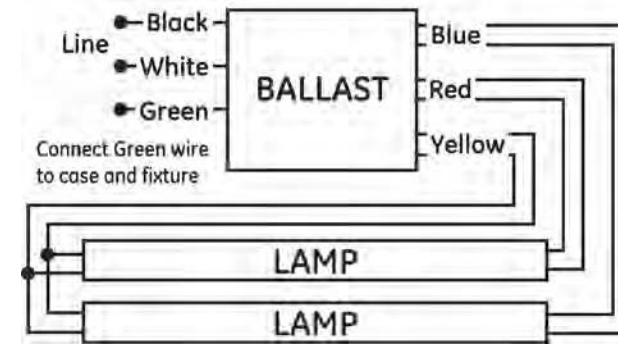
Fluorescent Accessories

Fluorescent Accessories	Prod Code	Description	Application	Units Per Carton
Starters	80619	FS-2-C	Starters for 14, 15 & 20 Watt Flu. Lamps	24
	80620	FS-4-C	Starters for 30 & 40 Watt Flu. Lamps	24
	80621	FS-5-C	Starters for 4, 6 & 8 Watt Flu. Lamps	24
	80622	FS-25-C	Starters for 22 & 25 Watt Flu. Lamps	24
	80629	FS-12-C	Starters for 32 Watt Circular Flu. Lamps	24
Sockets	80623	BP-SKT	Socket Set w/Starter for Bi-Pin Flu. Lamps	12
	80624	BP	Socket Set for Bi-Pin Flu. Lamps	12
	80625	SL-SS	Socket Set for Slimline Flu. Lamps	12
	80627	BP-FM	Face Mount Socket Set for Bi-Pin Flu. Lamps	12
	80628	BP-LP	Low-Profile Socket Set for Bi-Pin Flu. Lamps	12

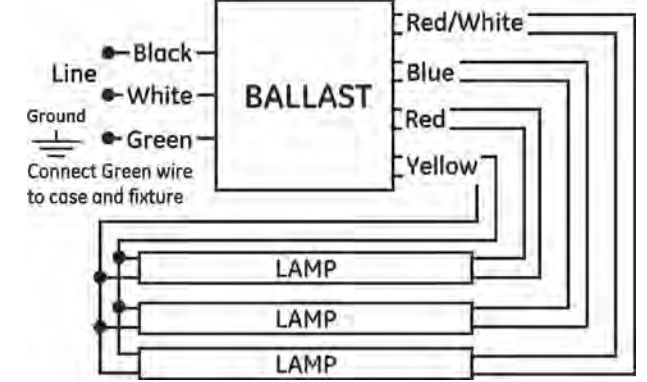
Wiring Diagrams

T12 Fluorescent Ballasts

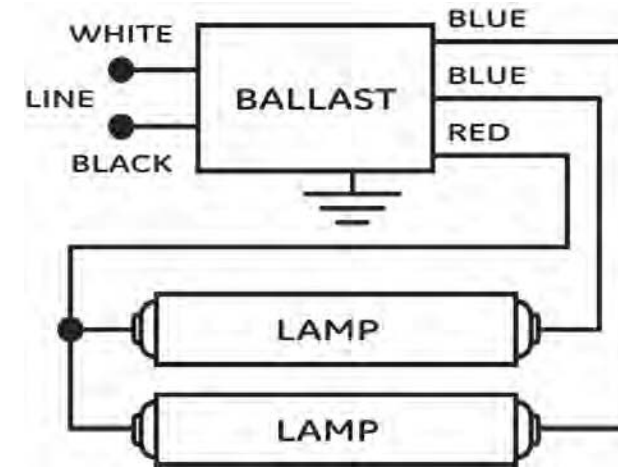
LFL PS2



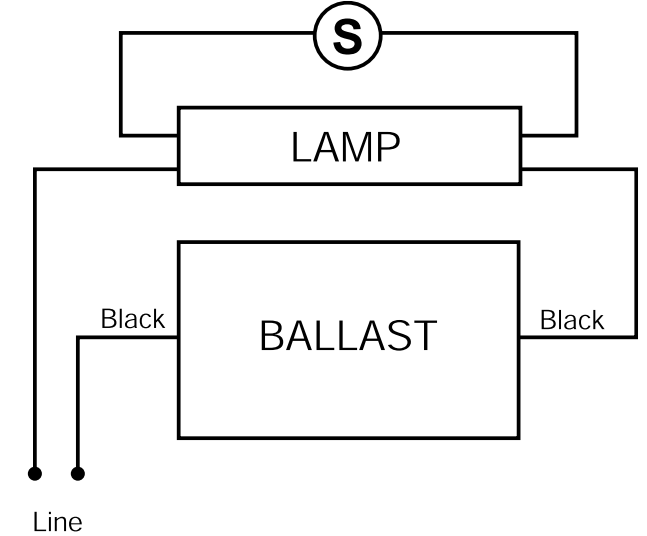
LFL PS3



LFL 14

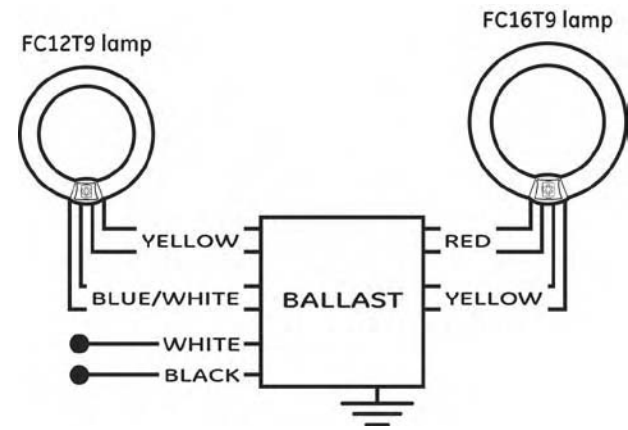


LFL 21

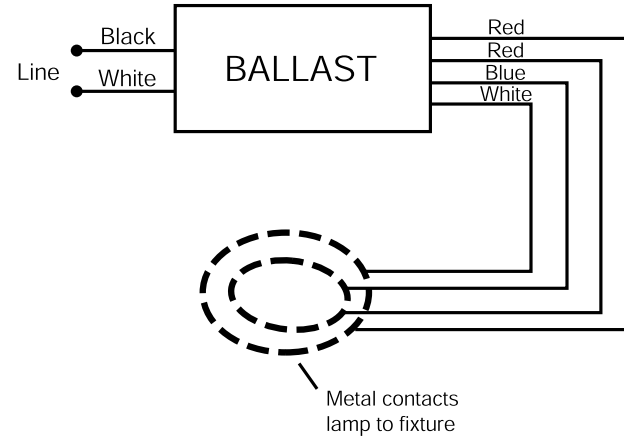


Wiring Diagrams T12 Fluorescent Ballasts

LFL 037

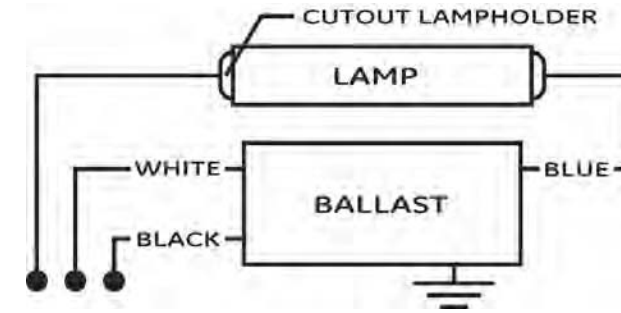


LFL 29

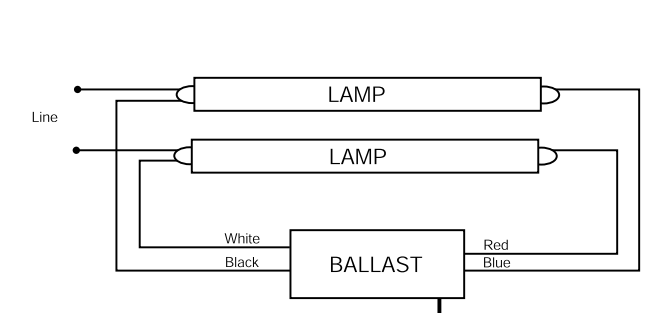


Wiring Diagrams T12 Fluorescent Ballasts

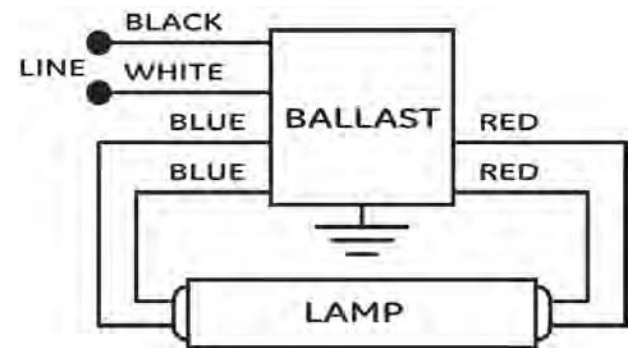
LFL 014



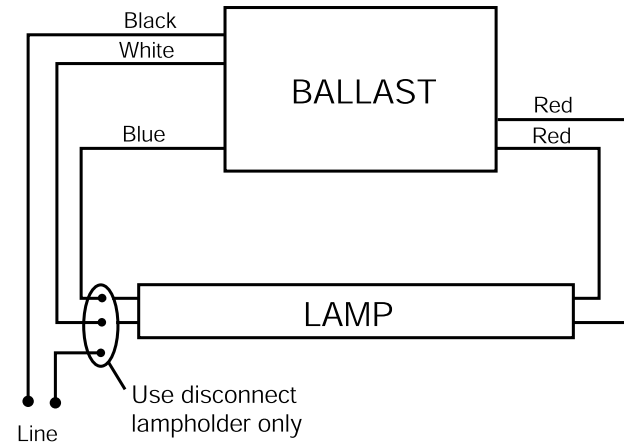
LFL 39



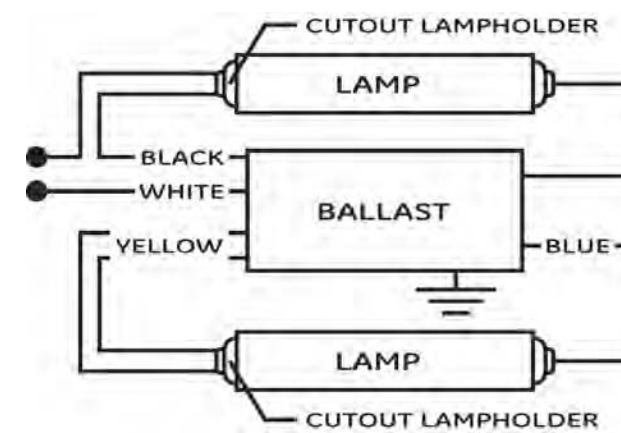
LFL 2



LFL 8

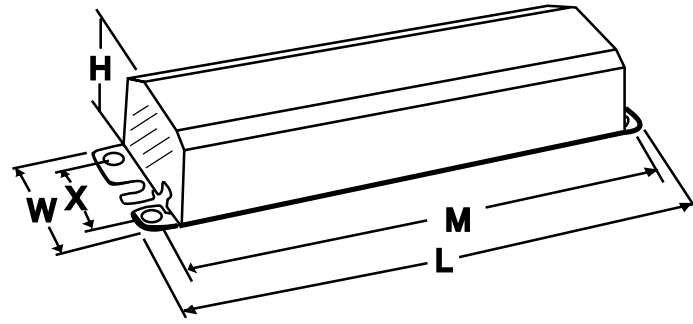


LFL 025

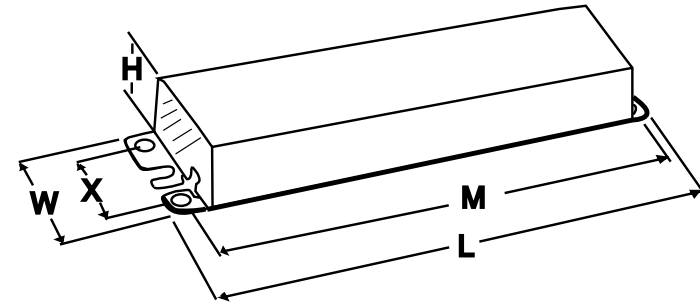


Case Dimensions
T12 Fluorescent Ballasts

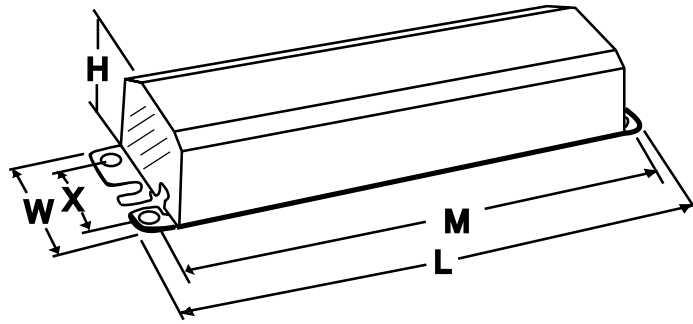
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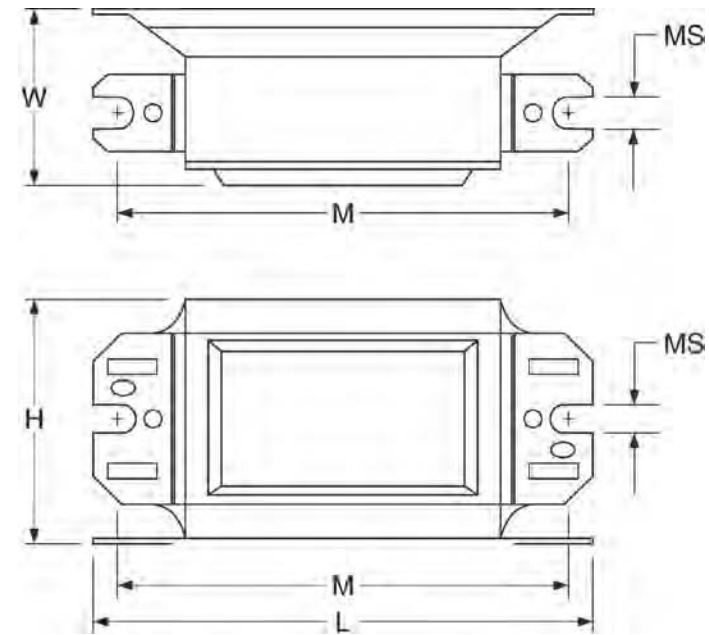
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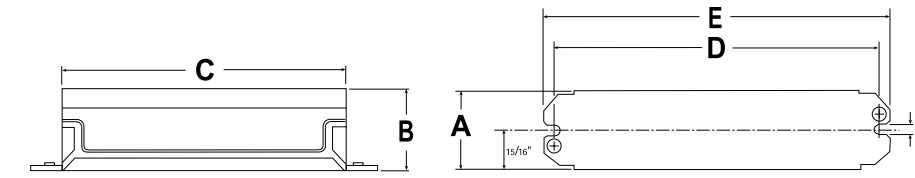


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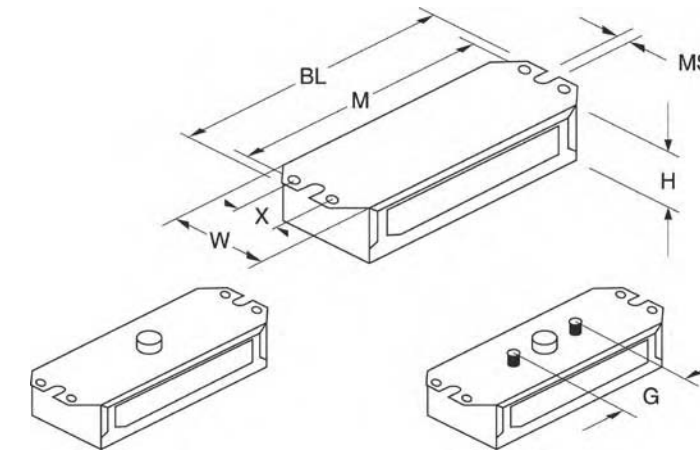


Case Dimensions
T12 Fluorescent Ballasts

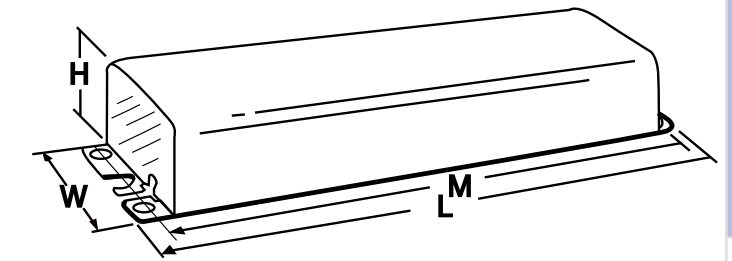
9



10



D10, 15, 29



Sign Ballasts

For T12 High Output Lamps

72105 – GESB-1224-24-IP

Sign Ballasts




T12HO Sign Ballast 12 to 24 ft, 2 to 4 lamps

General characteristics	
Ballast Type	Magnetic -T12 Sign Illuminating
Starting Method	Rapid start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	Active
Additional Info	Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
72105			

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
F72T12/HO	4	120	285	2.70 A	0.84	0.29	99	1.7	10	-20 / -29
	3	120	230	2.10 A	0.82	0.36	96	1.8	15	-20 / -29
	2	120	170	1.60 A	0.82	0.48	87	1.9	25	-20 / -29

Safety and performance  UL Type 2 Outdoor  UL Listed cUL Listed  Class P 3-Year Warranty

- High-output ballasts for rugged outdoor sign cabinet applications
- Reliable low-temperature starting – as low as -20°F
- Ideal for high-moisture environments – UL Type 2 Outdoor and HL rating
- Class P thermal protection

Dimensions	
Wiring diagrams – Sign 1224 – see example on page 118	
Case dimensions – Ref Drawing S1 – see page 119	
Length (L)	11.75 in (298.45 mm)
Width (W)	3.19 in (80.96 mm)
Height (H)	2.6 in (67.86 mm)
Mounting dimensions	
Bracket Length (BL)	
Mount Length (M)	11.0 in (279.40 mm)
Mount Width (X or F)	3.19 in (80.86 mm)
Mount Slots (MS)	
Weight	16.00 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	Varies
Remote Mounting Wire Gauge	Varies
Lead lengths	
Length (± 1 in)	
White and Black	24 in (610 mm)
Brown and Blue	80 in (2032 mm)
Orange/Black	60 in (1524 mm)
Orange, Red and Yellow	60 in (1524 mm)
Blue/White	72 in (1829 mm)

72106 – GESB-1240-46-IP

Sign Ballasts



T12HO Sign Ballast 12 to 40 ft, 4 to 6 lamps

General characteristics	
Ballast Type	Magnetic - T12 Sign Illuminating
Starting Method	Rapid start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	Active
Additional Info	Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
72106			

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
(2) F96T12/HO + (4) F72T12/HO	6	120	415	3.90 A	0.78	0.19	98	1.6	15	-20 / -29
F72T12/HO	5	120	350	3.20 A	0.77	0.22	95	1.7	10	-20 / -29
F48T12/HO	5	120	252	2.70 A	0.78	0.31	82	1.8	20	-20 / -29
F36T12/HO	4	120	183	2.40 A	0.75	0.41	65	1.9	35	-20 / -29

Safety and performance  UL Type 2 Outdoor  UL Listed cUL Listed 3-Year Warranty

- High-output ballasts for rugged outdoor sign cabinet applications
- Reliable low-temperature starting – as low as -20°F
- Ideal for high-moisture environments – UL Type 2 Outdoor and HL rating
- Class P thermal protection

Dimensions	
Wiring diagrams – Sign 1240 – see example on page 118	
Case dimensions – Ref Drawing S1 – see page 119	
Length (L)	11.75 in (298.45 mm)
Width (W)	3.19 in (80.96 mm)
Height (H)	2.6 in (67.86 mm)
Mounting dimensions	
Bracket Length (BL)	
Mount Length (M)	11.0 in (279.40 mm)
Mount Width (X or F)	3.19 in (80.96 mm)
Mount Slots (MS)	
Weight	18.00 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	Varies
Remote Mounting Wire Gauge	Varies
Lead lengths	
Length (± 1 in)	
White and Black	24 in (610 mm)
Brown and Blue	80 in (2032 mm)
Orange/Black	60 in (1524 mm)
Orange, Red and Yellow	60 in (1524 mm)
Blue/White	72 in (1829 mm)

Sign Ballasts

For T12 High Output Lamps

72107 – GESB-2040-24-IP

Sign Ballasts



T12HO Sign Ballast 20 to 40 ft, 4 to 6 lamps

General characteristics	
Ballast Type	Magnetic - T12 Sign Illuminating
Starting Method	Rapid start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	Active
Additional Info	Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
72107			

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
F120T12/HO	4	120	412	4.00 A	0.80	0.19	98	1.7	15	-20 / -29
	3	120	318	3.10 A	0.82	0.26	95	1.8	10	-20 / -29
	2	120	225	2.70 A	0.86	0.38	78	1.8	25	-20 / -29

Safety and performance  UL Type 2 Outdoor  UL Listed cUL Listed 3-Year Warranty

72108 – GESB-2448-46-IP

Sign Ballasts



T12HO Sign Ballast 24 to 48 ft, 4 to 6 lamps

General characteristics	
Ballast Type	Magnetic - T12 Sign Illuminating
Starting Method	Rapid start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	Active
Additional Info	Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
72108			

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
F96T12/HO	6	120	540	4.50 A	0.86	0.16	96	1.6	10	-20 / -29
	5	120	470	3.50 A	0.87	0.19	96	1.7	10	-20 / -29
	5	120	370	3.20 A	0.89	0.24	92	1.8	10	-20 / -29
F72T12/HO	4	120	310	3.00 A	0.89	0.29	85	1.8	20	-20 / -29

Safety and performance  UL Type 2 Outdoor  UL Listed cUL Listed 3-Year Warranty

- High-output ballasts for rugged outdoor sign cabinet applications
- Reliable low-temperature starting – as low as -20°F
- Ideal for high-moisture environments – UL Type 2 Outdoor and HL rating
- Class P thermal protection

Dimensions	
Wiring diagrams – Sign 2040 – see example on page 118	
Case dimensions – Ref Drawing S1 – see page 119	
Length (L)	11.75 in (298.45 mm)
Width (W)	3.19 in (80.96 mm)
Height (H)	2.6 in (67.86 mm)
Mounting dimensions	
Bracket Length (BL)	
Mount Length (M)	11.0 in (279.40 mm)
Mount Width (X or F)	3.19 in (80.96 mm)
Mount Slots (MS)	
Weight	18.00 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	Varies
Remote Mounting Wire Gauge	Varies
Lead lengths	
Length (± 1 in)	
White and Black	24 in (610 mm)
Brown and Blue	80 in (2032 mm)
Orange/Black	60 in (1524 mm)
Orange, Red and Yellow	60 in (1524 mm)
Blue/White	72 in (1829 mm)


Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
F120T12/HO	4	120	412	4.00 A	0.80	0.19	98	1.7	15	-20 / -29
	3	120	318	3.10 A	0.82	0.26	95	1.8	10	-20 / -29
	2	120	225	2.70 A	0.86	0.38	78	1.8	25	-20 / -29

Safety and performance  UL Type 2 Outdoor  UL Listed cUL Listed 3-Year Warranty

- High-output ballasts for rugged outdoor sign cabinet applications
- Reliable low-temperature starting – as low as -20°F
- Ideal for high-moisture environments – UL Type 2 Outdoor and HL rating
- Class P thermal protection

Dimensions	
Wiring diagrams – Sign 2448 – see example on page 118	
Case dimensions – Ref Drawing S1 – see page 119	
Length (L)	11.75 in (298.45 mm)
Width (W)	3.19 in (80.96 mm)
Height (H)	2.6 in (67.86 mm)
Mounting dimensions	
Bracket Length (BL)	
Mount Length (M)	11.0 in (279.40 mm)
Mount Width (X or F)	3.19 in (80.96 mm)
Mount Slots (MS)	
Weight	18.00 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	Varies
Remote Mounting Wire Gauge	Varies
Lead lengths	
Length (± 1 in)	
White and Black	24 in (610 mm)
Brown and Blue	80 in (2032 mm)
Orange/Black	60 in (1524 mm)
Orange, Red and Yellow	60 in (1524 mm)
Blue/White	72 in (1829 mm)

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
F96T12/HO	6	120	540	4.50 A	0.86	0.16	96	1.6	10	-20 / -29
	5	120	470	3.50 A	0.87	0.19	96	1.7	10	-20 / -29
	5	120	370	3.20 A	0.89	0.24	92	1.8	10	-20 / -29
F72T12/HO	4	120	310	3.00 A	0.89	0.29	85	1.8	20	-20 / -29

Safety and performance  UL Type 2 Outdoor  UL Listed cUL Listed 3-Year Warranty

Sign Ballasts

For T12 High Output Lamps

88921 – USB-0412-12-IP

Sign Ballasts





4 to 12 ft, 1 to 2 lamps

General characteristics	
Ballast Type	Magnetic – T12 Sign Illuminating
Starting Method	Rapid start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	
Sound Rating	
Additional Info	Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
88921			

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (*F/*C)
F72T12/HO	2	120	160	1.35 A	1.00	0.62	90			-20/-29

Safety and performance    

- High-output ballasts for rugged outdoor sign cabinet applications
- Reliable low-temperature starting – as low as -20°F
- Ideal for high-moisture environments – UL Type 2 Outdoor and HL rating
- Class P thermal protection

Dimensions	
Wiring diagrams – Sign S1A, Sign S2A – see example on page 115	
Case dimensions – Ref Drawing S1 – see page 119	
Length (L)	10.5 in (268.68 mm)
Width (W)	3.19 in (80.96 mm)
Height (H)	1.75 in (44.45 mm)
Mounting dimensions	
Bracket Length (BL)	11.7 in (297.25 mm)
Mount Length (M)	11.1 in (282.98 mm)
Mount Width (X or F)	
Mount Slots (MS)	
Weight	8.00 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	Varies
Remote Mounting Wire Gauge	Varies
Lead lengths	
Length (± 1 in)	
White and Black	24 in (610 mm)
Blue and Red	38 in (965 mm)
Yellow	48 in (1219 mm)

Sign Ballasts

For T12 High Output Lamps

88934 – USB-1632-24-IP

Sign Ballasts





16 to 32 ft, 2 to 4 lamps

General characteristics	
Ballast Type	Magnetic – T12 Sign Illuminating
Starting Method	Rapid start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	
Sound Rating	
Additional Info	Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
88934			

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (*F/*C)
F96T12/HO	4	120	420	3.50 A	1.00	0.23	90			-20/-29

Safety and performance    

- High-output ballasts for rugged outdoor sign cabinet applications
- Reliable low-temperature starting – as low as -20°F
- Ideal for high-moisture environments – UL Type 2 Outdoor and HL rating
- Class P thermal protection

Dimensions	
Wiring diagrams – Sign S4A, Sign S6A, Sign S9 – see example on page 115	
Case dimensions – Ref Drawing S1 – see page 119	
Length (L)	15.625 in (396.87 mm)
Width (W)	3.19 in (80.96 mm)
Height (H)	2.6 in (67.86 mm)
Mounting dimensions	
Bracket Length (BL)	16.6 in (423.87 mm)
Mount Length (M)	16.125 in (409.57 mm)
Mount Width (X or F)	
Mount Slots (MS)	
Weight	16.00 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	Varies
Remote Mounting Wire Gauge	Varies
Lead lengths	
Length (± 1 in)	
Blue and Brown	80 in (2032 mm)
Yellow	60 in (1524 mm)
White and Black	24 in (610 mm)
Blue/White	72 in (1829 mm)
Red	54 in (1372 mm)

88931 – USB-0816-14-IP

Sign Ballasts





8 to 16 ft, 1 to 4 lamps

General characteristics	
Ballast Type	Magnetic – T12 Sign Illuminating
Starting Method	Rapid start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	
Sound Rating	
Additional Info	Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
88931			

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (*F/*C)
F48T12/HO	4	120	220	1.90 A	1.00	0.45	90			-20/-29

Safety and performance    

- High-output ballasts for rugged outdoor sign cabinet applications
- Reliable low-temperature starting – as low as -20°F
- Ideal for high-moisture environments – UL Type 2 Outdoor and HL rating
- Class P thermal protection

Dimensions	
Wiring diagrams – Sign S1B, Sign S4A, Sign S6A, Sign S9 – see example on page 115	
Case dimensions – Ref Drawing S1 – see page 119	
Length (L)	10.5 in (268.68 mm)
Width (W)	3.19 in (80.96 mm)
Height (H)	2.6 in (67.86 mm)
Mounting dimensions	
Bracket Length (BL)	11.7 in (297.25 mm)
Mount Length (M)	11.1 in (282.98 mm)
Mount Width (X or F)	
Mount Slots (MS)	
Weight	12.00 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	Varies
Remote Mounting Wire Gauge	Varies
Lead lengths	
Length (± 1 in)	
White and Black	24 in (610 mm)
Blue	65 in (1651 mm)
White	36 in (914 mm)
Yellow	39 in (991 mm)
Brown	56 in (1422 mm)
Red	40 in (1016 mm)
Blue/White	48 in (1219 mm)

88936 – USB-1024-14-IP

Sign Ballasts





10 to 24 ft, 1 to 4 lamps

General characteristics	
Ballast Type	Magnetic – T12 Sign Illuminating
Starting Method	Rapid start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	
Sound Rating	
Additional Info	Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
88936			

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (*F/*C)
F72T12/HO	4	120	325	2.70 A	1.00	0.30	90			-20/-29

Safety and performance    

- High-output ballasts for rugged outdoor sign cabinet applications
- Reliable low-temperature starting – as low as -20°F
- Ideal for high-moisture environments – UL Type 2 Outdoor and HL rating
- Supports 1 to 6 lamps, 2 to 48 feet total length
- Class P thermal protection

Dimensions	
Wiring diagrams – Sign S1B, Sign S4A, Sign S6A, Sign S9 – see example on page 115	
Case dimensions – Ref Drawing S1 – see page 119	
Length (L)	13.19 in (334.96 mm)
Width (W)	3.19 in (80.96 mm)
Height (H)	2.6 in (67.86 mm)
Mounting dimensions	
Bracket Length (BL)	14.3 in (363.52 mm)
Mount Length (M)	13.75 in (349.25 mm)
Mount Width (X or F)	
Mount Slots (MS)	
Weight	14.00 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	Varies
Remote Mounting Wire Gauge	Varies
Lead lengths	
Length (± 1 in)	
Blue	79 in (2007 mm)
Brown	83 in (2108 mm)
Yellow	75 in (1905 mm)
White and Black	24 in (610 mm)
Red	48 in (1219 mm)
Blue/White	57 in (1448 mm)

Sign Ballasts

For T12 High Output Lamps

88939 – USB-2036-46-IP

Sign Ballasts

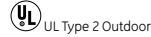



20 to 36 ft, 4 to 6 lamps

General characteristics	
Ballast Type	Magnetic – T12 Sign Illuminating
Starting Method	Rapid start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	
Sound Rating	
Additional Info	Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
88939			

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
F72T12/HO	6	120	480	4.00 A	1.00	0.20	90			-20/-29

Safety and performance    

- High-output ballasts for rugged outdoor sign cabinet applications
- Reliable low-temperature starting – as low as -20°F
- Ideal for high-moisture environments – UL Type 2 Outdoor and HL rating
- Supports 1 to 6 lamps, 2 to 48 feet total length
- Class P thermal protection

Dimensions	
Wiring diagrams – Sign S5A, Sign S7, Sign S7A – see example on pages 116-117	
Case dimensions – Ref Drawing S1 – see page 119	
Length (L)	15.625 in (396.87 mm)
Width (W)	3.19 in (80.96 mm)
Height (H)	2.6 in (67.86 mm)
Mounting dimensions	
Bracket Length (BL)	16.6 in (423.87 mm)
Mount Length (M)	16.125 in (409.57 mm)
Mount Width (X or F)	
Mount Slots (MS)	
Weight	18.00 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	Varies
Remote Mounting Wire Gauge	Varies
Lead lengths	
Length (± 1 in)	
Orange and Blue	50 in (1270 mm)
Orange/Black	50 in (1270 mm)
Red	80 in (2032 mm)
Yellow	70 in (1778 mm)
Blue/White and Brown	38 in (965 mm)
White and Black	24 in (610 mm)

88940 – USB-2048-46-IP

Sign Ballasts

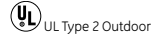
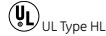


20 to 48 ft, 4 to 6 lamps

General characteristics	
Ballast Type	Magnetic – T12 Sign Illuminating
Starting Method	Rapid start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	
Sound Rating	
Additional Info	Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
88940			

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
F96T12/HO	6	120	600	5.00 A	1.00	0.16	90			-20/-29

Safety and performance    

- High-output ballasts for rugged outdoor sign cabinet applications
- Reliable low-temperature starting – as low as -20°F
- Ideal for high-moisture environments – UL type 2 outdoor and HL rating
- Supports 1 to 6 lamps, 2 to 48 feet total length
- Class P thermal protection

Dimensions	
Wiring diagrams – Sign S5A, Sign S7, Sign S7A – see example on pages 116-117	
Case dimensions – Ref Drawing S1 – see page 119	
Length (L)	15.625 in (396.87 mm)
Width (W)	3.19 in (80.96 mm)
Height (H)	2.6 in (67.86 mm)
Mounting dimensions	
Bracket Length (BL)	16.6 in (423.87 mm)
Mount Length (M)	16.125 in (409.57 mm)
Mount Width (X or F)	
Mount Slots (MS)	
Weight	18.00 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	Varies
Remote Mounting Wire Gauge	Varies
Lead lengths	
Length (± 1 in)	
Blue/White	50 in (1270 mm)
Brown and Orange	50 in (1270 mm)
Orange/Black	50 in (1270 mm)
White and Black	24 in (610 mm)
Blue and Red	80 in (2032 mm)
Yellow	70 in (1778 mm)

Sign Ballasts

For T12 High Output Lamps

88918 – USB-0218-16-IP

Sign Ballasts

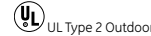



Max 3, 2 to 18 ft, 1 to 6 lamps

General characteristics	
Ballast Type	Magnetic – T12 Sign Illuminating
Starting Method	Rapid start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	
Sound Rating	
Additional Info	Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
88918			

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
F36T12/HO	6	120	240	2.00 A	1.00	0.41	90			-20/-29

Safety and performance    

88919 – USB-1048-16-IP

Sign Ballasts





Max 3, 10 to 48 ft, 1 to 6 lamps

General characteristics	
Ballast Type	Magnetic – T12 Sign Illuminating
Starting Method	Rapid start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	
Sound Rating	
Additional Info	Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
88919			

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
F96T12/HO	6	120	570	4.80 A	1.00	0.17	90			-20/-29

Safety and performance    

- High-output ballasts for rugged outdoor sign cabinet applications
- Reliable low-temperature starting – as low as -20°F
- Ideal for high-moisture environments – UL Type 2 Outdoor and HL rating
- Class P thermal protection

Dimensions	
Wiring diagrams – Sign S3, Sign S4, Sign S5, Sign S6, Sign S7, Sign S8 – see example on pages 116-117	
Case dimensions – Ref Drawing S1 – see page 119	
Length (L)	13.19 in (334.96 mm)
Width (W)	3.19 in (80.96 mm)
Height (H)	2.6 in (67.86 mm)
Mounting dimensions	
Bracket Length (BL)	14.3 in (363.52 mm)
Mount Length (M)	13.75 in (349.25 mm)
Mount Width (X or F)	
Mount Slots (MS)	
Weight	15.00 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	Varies
Remote Mounting Wire Gauge	Varies
Lead lengths	
Length (± 1 in)	
White and Black	24 in (610 mm)
Brown, Blue and Red	60 in (1524 mm)
Orange/Black	60 in (1524 mm)
Orange and Yellow	60 in (1524 mm)
Blue/White	60 in (1524 mm)

- High-output ballasts for rugged outdoor sign cabinet applications
- Reliable low-temperature starting – as low as -20°F
- Ideal for high-moisture environments – UL Type 2 Outdoor and HL rating
- Class P thermal protection

Dimensions	
Wiring diagrams – Sign S1, Sign S2, Sign S3, Sign S4, Sign S7, Sign S8 – see example on pages 116-117	
Case dimensions – Ref Drawing S1 – see page 119	
Length (L)	15.625 in (396.87 mm)
Width (W)	3.19 in (80.96 mm)
Height (H)	2.6 in (67.86 mm)
Mounting dimensions	
Bracket Length (BL)	16.6 in (423.87 mm)
Mount Length (M)	16.125 in (409.57 mm)
Mount Width (X or F)	
Mount Slots (MS)	
Weight	18.00 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	Varies
Remote Mounting Wire Gauge	Varies
Lead lengths	
Length (± 1 in)	
Blue and Red	80 in (2032 mm)
Blue/White and Brown	50 in (1270 mm)
Yellow	70 in (1778 mm)
White and Black	24 in (610 mm)
Orange/Black and Orange	60 in (1524 mm)

Sign Ballasts

For T12 High Output Lamps

88920 – USB-1232-16-IP

Sign Ballasts

Max 3, 12 to 32 ft, 1 to 6 lamps





General characteristics	
Ballast Type	Magnetic - T12 Sign Illuminating
Starting Method	Rapid start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	
Sound Rating	
Additional Info	Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
88920			

Specifications by lamp and wattage

Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
F48T12/HO	6	120	410	3.50 A	1.00	0.24	90			-20/-29

Safety and performance    

- High-output ballasts for rugged outdoor sign cabinet applications
- Reliable low-temperature starting - as low as -20°F
- Ideal for high-moisture environments - UL Type 2 Outdoor and HL rating
- Class P thermal protection

Dimensions

Wiring diagrams - Sign S3, Sign S4, Sign S5, Sign S6, Sign S7, Sign S8 - see example on pages 116-117

Case dimensions - Ref Drawing S1 - see page 119

Length (L)	13.19 in (334.96 mm)
Width (W)	3.19 in (80.96 mm)
Height (H)	2.6 in (67.86 mm)

Mounting dimensions

Bracket Length (BL)	14.3 in (363.52 mm)
Mount Length (M)	13.75 in (349.25 mm)
Mount Width (X or F)	
Mount Slots (MS)	

Weight	16.00 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	Varies
Remote Mounting Wire Gauge	Varies

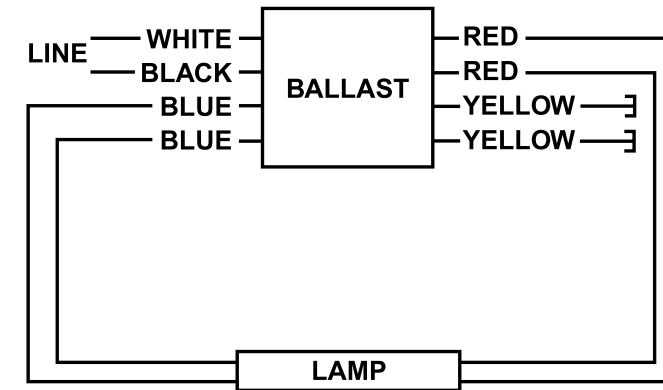
Lead lengths

	Length (± 1 in)
White and Black	24 in (610 mm)
Brown and Blue	80 in (2032 mm)
Orange/Black	60 in (1524 mm)
Orange, Red and Yellow	60 in (1524 mm)
Blue/White	72 in (1829 mm)

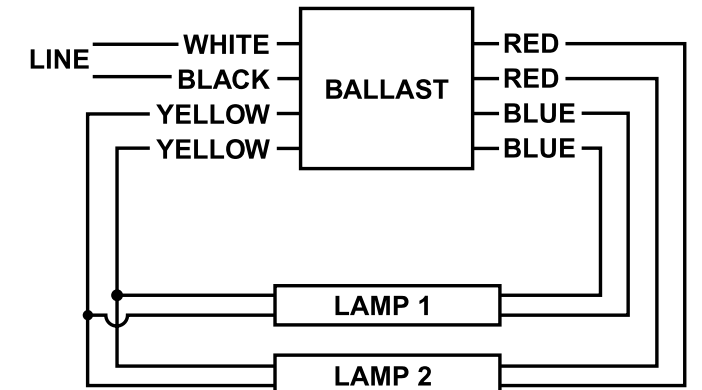
Wiring Diagrams

Sign Ballasts

SIGN S1A

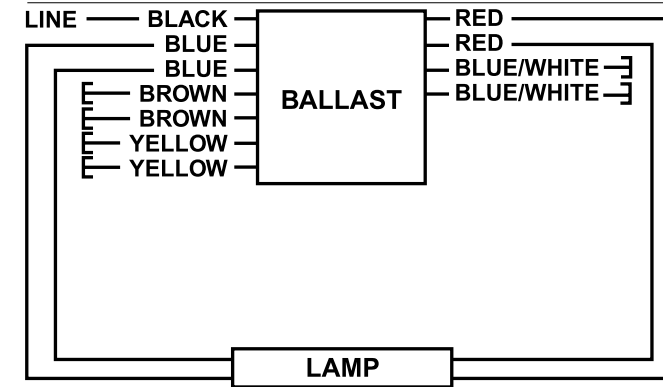


SIGN S2A

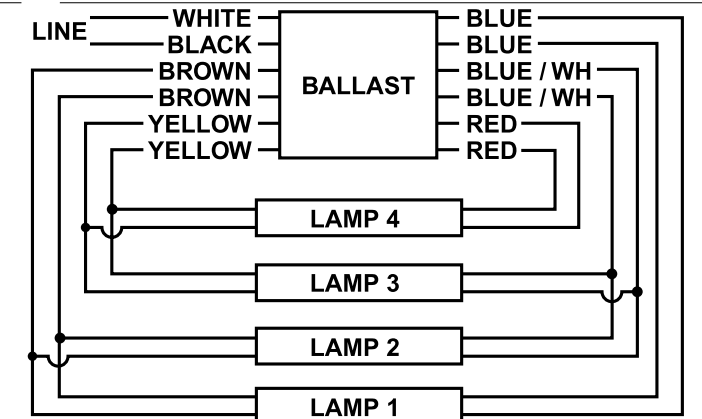


MOUNT LAMPS WITHIN 1' OF GROUND METAL REFLECTOR

SIGN S1B

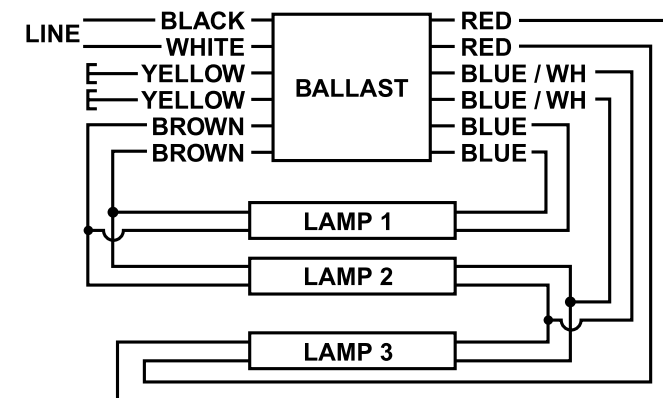


SIGN S4A



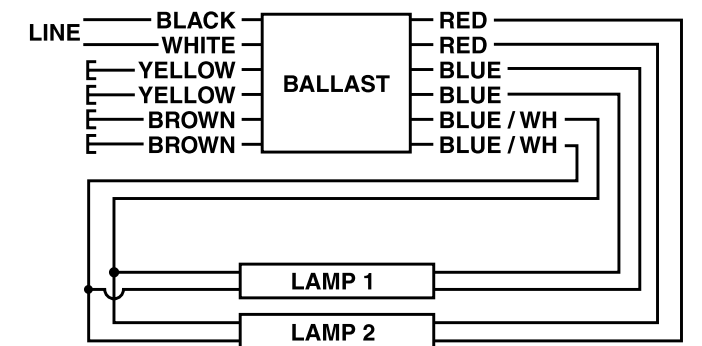
MOUNT LAMPS WITHIN 1' OF GROUND METAL REFLECTOR

SIGN S6A



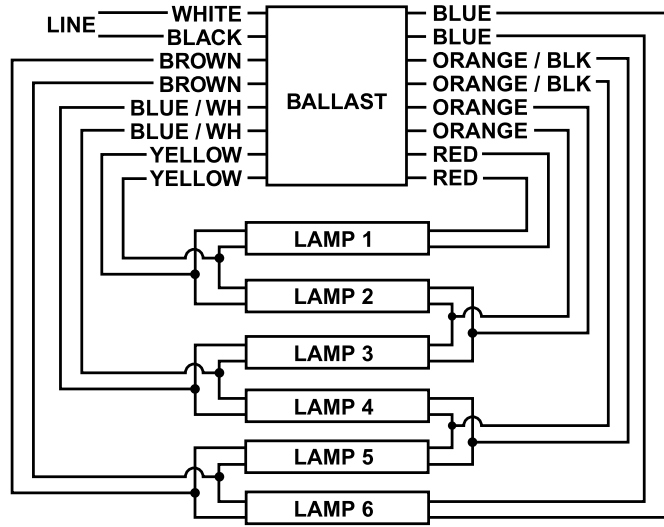
INDIVIDUALLY CAP THE YELLOW LEADS

SIGN S9



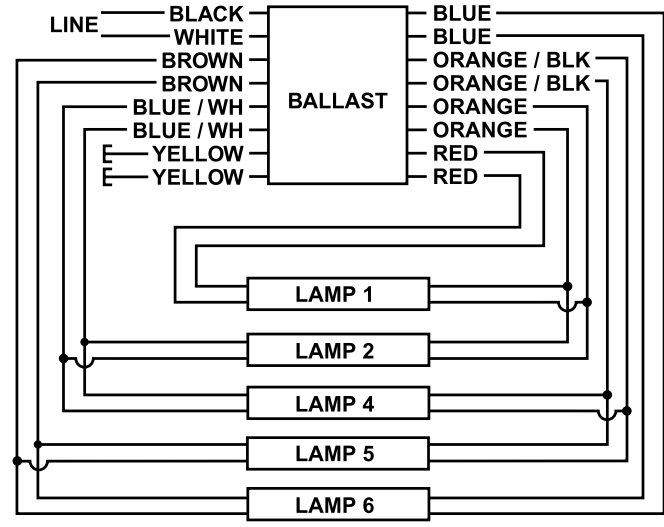
Wiring Diagrams Sign Ballasts

SIGN S5A



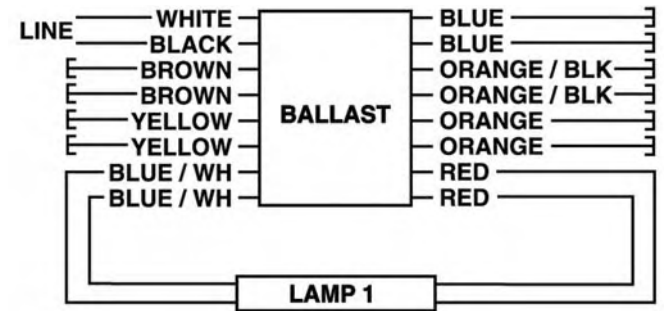
MOUNT LAMPS WITHIN 1 OF GROUNDED METAL REFLECTOR

SIGN S7A

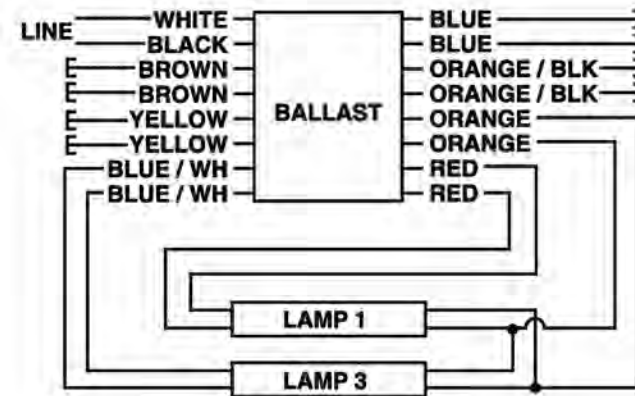


INDIVIDUALLY CAP THE YELLOW LEADS

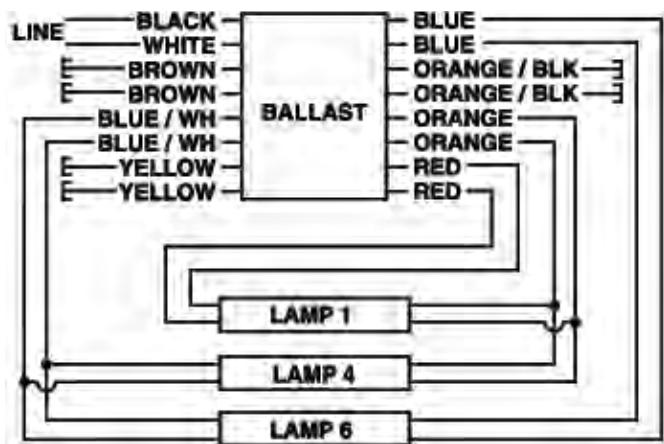
SIGN S1



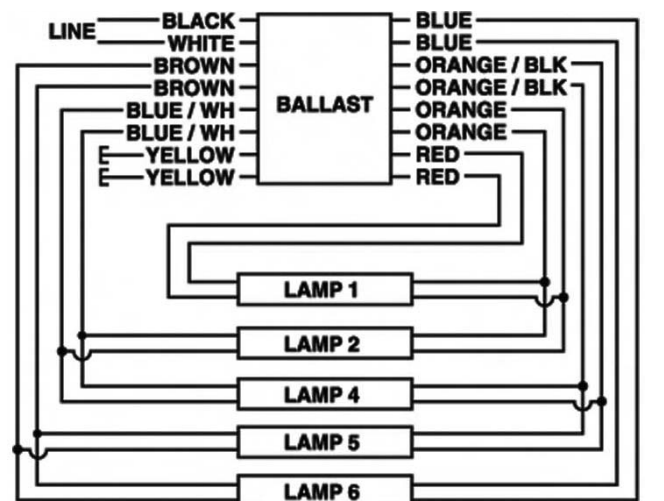
SIGN S2



SIGN S3

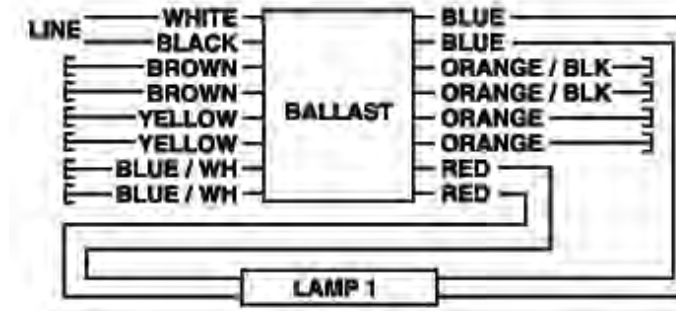


SIGN S4

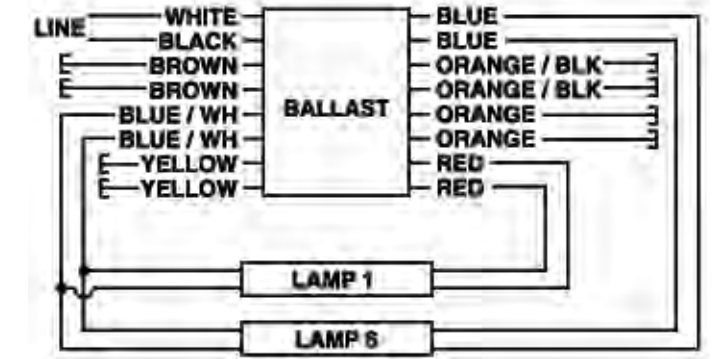


Wiring Diagrams Sign Ballasts

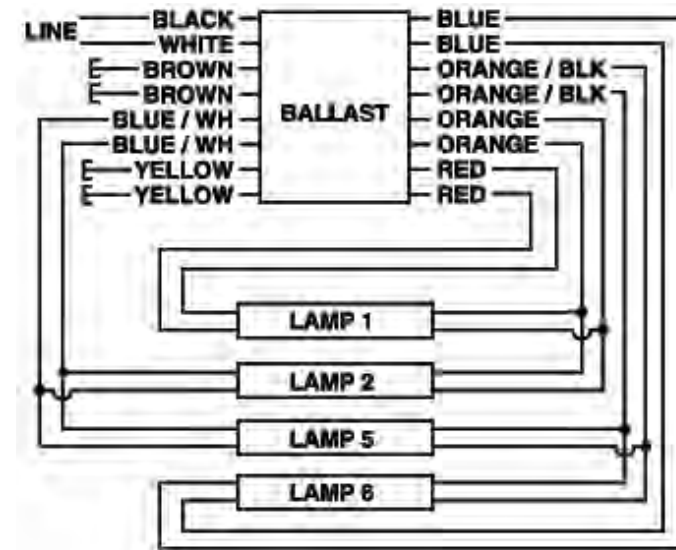
SIGN S5



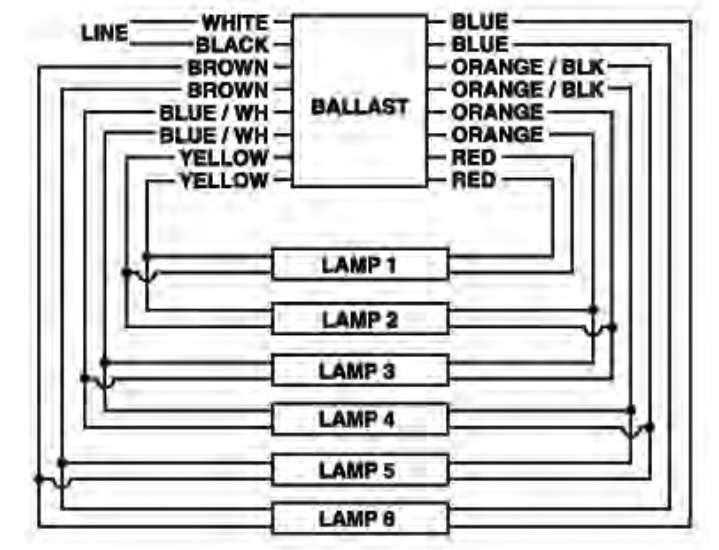
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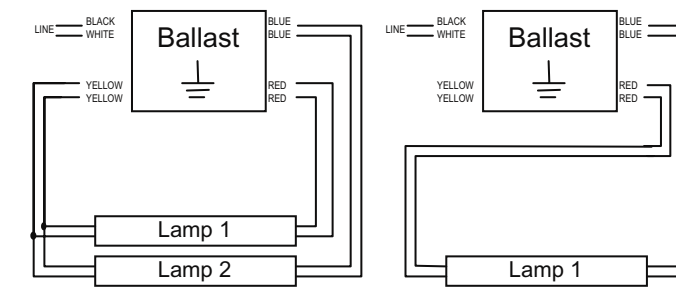
SIGN S7



SIGN S8

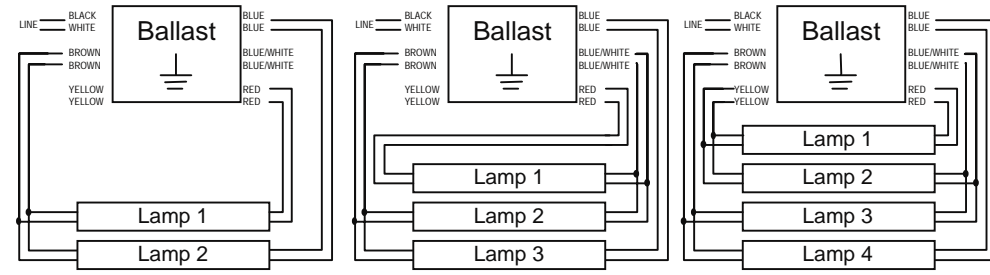


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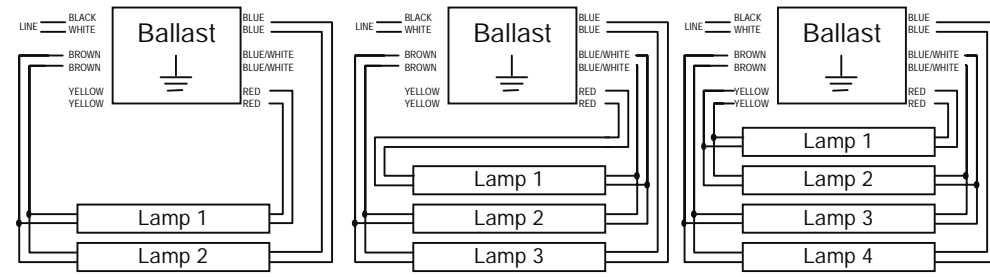


Wiring Diagrams Sign Ballasts

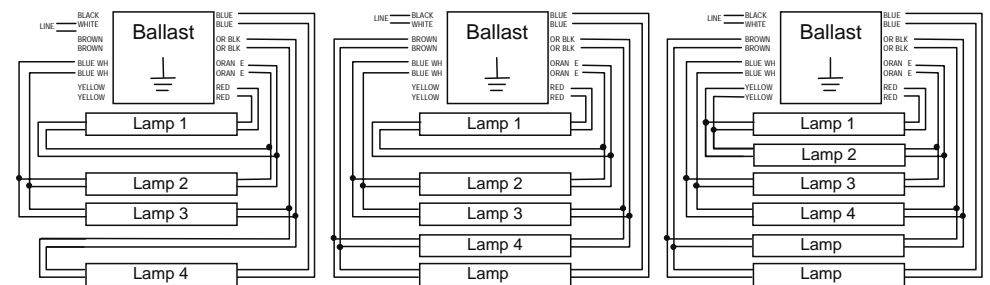
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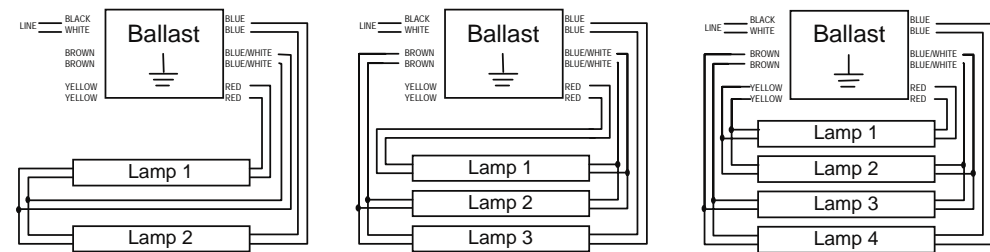
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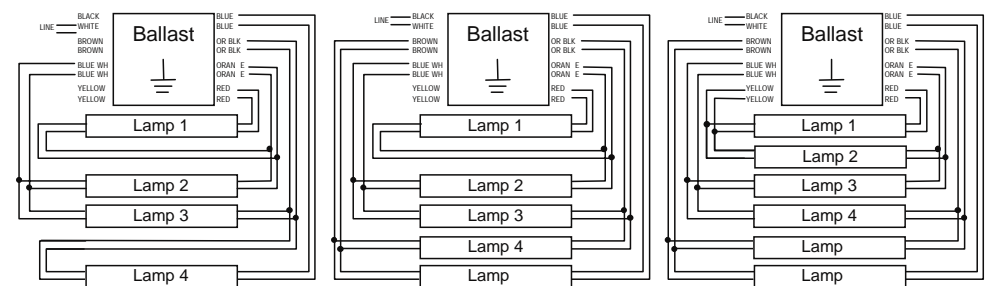
SIGN 1240



SIGN 2040

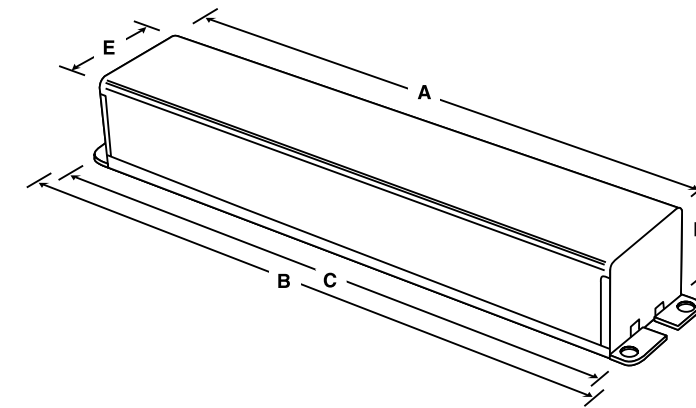


SIGN 2448



Case Dimensions Sign Ballasts

S1





Understanding Compact Fluorescent Ballasts

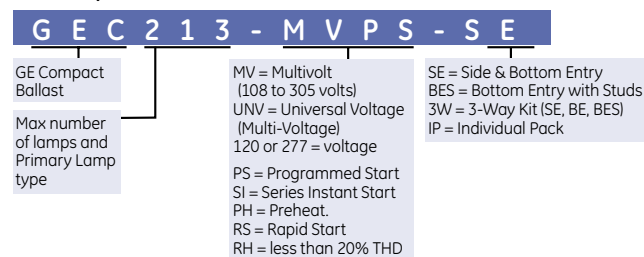
GE compact fluorescent (CFL) ballasts provide energy saving alternatives to halogen, incandescent or HID light sources. GE Multivolt ProLine® CFL programmed start ballasts combine universal voltage (108-305V) technology with multi-lamp capability, dual entry color-coded connectors and ultra system reliability to create an industry leading CFL solution for commercial and residential applications.

Multivolt ProLine® CFL ballasts are offered in three different configurations: 1) -SE description - dual entry (side or bottom) connectors, 2) -BES - bottom entry with studs for mounting to junction boxes and 3) -3W - 3-way mounting kits that allow you to have all three mounting options with one kit.

Multivolt ProLine® CFL ballasts come with a five-year ballast and one-year lamp limited warranty. These ballasts also meet the EPA's ENERGY STAR® fixture program requirements with a Consumer Class B EMI rating for residential applications, as well as a high power factor ballast design.

Use the GE Multivolt ProLine® CFL Multi-Lamp compatibility chart (page 121) to find the right ballast for your need.

GE Compact Fluorescent Ballast nomenclature



GE Multivolt ProLine® CFL Multi-Lamp Capability

	Lamp Type	GEC213-MVPS	GEC218-MVPS	GEC226-MVPS	GEC242MVPS	GEC240-MV
T4	1 x 13W (CFQ/G24q, CFTR/GX24q)	X				
	2 x 13W (CFQ/G24q, CFTR/GX24q)	X				
	1 x 18W (CFQ/G24q, CFTR/GX24q)	X	X			
	2 x 18W (CFQ/G24q, CFTR/GX24q)		X			
	1 x 26W (CFQ/G24q, CFTR/GX24q)		X	X	X	
	2 x 26W (CFQ/G24q, CFTR/GX24q)			X	X	
	1 x 32W (CFQ/G24q, CFTR/GX24q)			X		
	2 x 32W (CFQ/G24q, CFTR/GX24q)				X	
	1 x 42W (CFQ/G24q, CFTR/GX24q)			X	X	
	2 x 42W (CFQ/G24q, CFTR/GX24q)				X	
T5 Circleline	1 x 22W (FC9T5)				X	
	1 x 22W (FC9T5)				X	
	1 x 22W + 1 x 40W (FC9T5 + FC12T5)				X	
	1 x FC16T9				X	
FT T5	2 x 24 / 27W (FT/2G11)			X	X	
	1 x FT36W (2G11)				X	
	2 x FT36W (2G11)				X	
	1 x 40W (FT/2G11) & Energy Saving 28W				X	X
	2 x 40W (FT/2G11) & Energy Saving 28W				X	X
	3 x 40W (FT/2G11) & Energy Saving 28W					
2D	1 x 10W (CFS/GR10q)	X				
	2 x 10W (CFS/GR10q)	X				
	1 x 16W (CFS/GR10q)	X				
	2 x 16W (CFS/GR10q)		X			
	1 x 21W (CFS/GR10q)		X			
	2 x 21W (CFS/GR10q)		X	X		
	1 x 28W (CFS/GR10q)		X			
	2 x 28W (CFS/GR10q)				X	
	1 x 38W (CFS/GR10q)			X		
	2 x 38W (CFS/GR10q)				X	
T5	1 x 57W (CFTR/GX24q)				X	
	1 x 70W (CFTR/GX24q)				X	

CFL - Cross Reference Chart

GE	Universal	Advance	Osram	Robertson	ESI
GE213-MVPS-3W	C213UNVSE/BE/BES	ICF-2513-H1-LD	QTP 1/2X13CF/UNV	PSM213CQMY	ES-2/1-CFQ-13/10-UNV-C/D ES-1-2D-16/10-UNV-D
GE218-MVPS-3W	C218UNVSE/BE/BES	ICF-2518-H1-LD REL-2Q18 VEL-2Q18 R-2Q18-4P-TP V-2Q18-4P-TP	QTP 1/2X18CF/UNV	PSM218CQMY	ES-2/1-CFQ-18-UNV-C/D ES-1-2D-21-UNV-D
GE226-MVPS-3W	C2642UNVSE/BE/BES C226SR120BE C226SR277BE	ICF-2526-H1-LD REL-1T32 VEL-1T32 REL-1T42 VEL-1T42	QTP 2X26/UNV QTP 1/2XCF/UNV	PSM226CQMY	ES-2/1-CFQ-26-UNV-C/D ES-1-CFH-42/32/26-UNV-C/D ES-1-T5C-40/22-UNV-D

Specifications: Multivolt ProLine® CFL Quick Reference Chart

	Lamp Type	# of Lamps	Input Volts	SE (Side and Bottom Entry)	BES (Bottom Exit with Studs)	3W (3-Way Mounting Kit)	Input Watts	Line Current	Power Factor	Max THD%	Ballast Factor	Ballast Efficiency Factor	
GEC213-MVPS-xx	CFQ13W/GX4q	2	120	71429	71428	71430	29	0.25	0.99	10	1.0	3.45	
			277				29	0.11	0.99	10	1.0	3.45	
		1	120				16	0.16	0.96	10	1.0	6.25	
			177				16	0.06	0.96	10	1.0	6.25	
		CFTR13W/GX24q	1				120	29	0.25	0.99	10	1.0	3.45
							277	29	0.11	0.99	10	1.0	3.45
	CFQ18W/GX24q	1	120				16	0.16	0.96	10	1.0	6.25	
			277				20	0.17	0.99	12	1.0	5.00	
	CFTR18W/GX24q	1	120				20	0.17	0.99	12	1.0	5.00	
			277				20	0.07	0.97	12	1.0	5.00	
	CFS10W/GR10q	1	120				23	0.19	0.97	11	0.95	4.13	
			277				23	0.09	0.97	11	0.95	4.13	
CFS16W/GR10q	1	120	13	0.11	0.96	14	1.05	8.08					
		277	13	0.05	0.96	14	1.05	8.08					
GEC218-MVPS-xx	GFQ18W/G24q	2	120	71433	71432	71434	35	0.3	0.99	10	0.95	2.71	
			277				35	0.13	0.99	10	0.95	2.71	
		1	120				19	0.16	0.97	10	1.0	5.26	
			277				19	0.07	0.97	10	1.0	5.26	
		CFTR18W/GX24q	1				120	39	0.33	0.97	10	1.05	2.69
							277	39	0.14	0.99	10	1.05	2.69
	CFQ26W/G24q	1	120				20	0.17	0.97	10	1.05	5.25	
			277				20	0.08	0.97	10	1.05	5.25	
	GFTR26W/GX24q	1	120				28	0.24	0.99	12	1.0	3.57	
			277				28	0.10	0.96	12	1.0	3.57	
	CFS21W/GR10q	1	120				28	0.24	0.99	12	1.0	3.57	
			277				28	0.10	0.96	12	1.0	3.57	
CFS16W/GR10q	2	120	40	0.33	0.99	10	0.91	2.28					
		277	40	0.14	0.99	10	0.91	2.28					
CFS28W/GR10q	1	120	20	0.16	0.97	15	0.9	4.5					
		277	20	0.07	0.97	15	0.9	4.5					
GEC226-MVPS-xx	CFQ26W/G24q	2	120	71444	71443	71445	51	0.43	0.99	10	1.0	1.96	
			277				51	0.19	0.99	10	1.0	1.96	
		1	120				27	0.23	0.98	10	1.0	3.7	
			277				27	0.10	0.98	10	1.0	3.7	
		CFTR26W/GX24q	1				120	54	0.45	0.99	10	1.0	1.85
							277	54	0.20	0.99	10	1.0	1.85
	CFTR42W/GX24q	1	120				29	0.24	0.98	10	1.10	3.79	
			277				29	0.11	0.98	10	1.10	3.79	
	CFT32W/GX24q	1	120				46	0.38	0.98	10	0.98	2.13	
			277				46	0.17	0.98	10	0.98	2.13	
	CFS21W/GR10q	2	120				36	0.031	0.98	10	0.98	2.72	
			277				36	0.013	0.98	10	0.98	2.72	
FT24W/2G11	2	120	51	0.042	0.99	10	1.12	2.20					
		277	51	0.18	0.99	10	1.12	2.20					
FC16T9/40W	1	120	48	0.41	0.99	10	0.93	1.94					
		277	48	0.18	0.99	10	0.93	1.94					
		120	43	0.36	0.99	10	1.00	2.33					
		277	43	0.16	0.99	10	1.00	2.33					

ProLine® CFL Electronic Ballasts
For 13 – 42W T4 CFL Lamps

71428 – GEC213-MVPS-BES
71429 – GEC213-MVPS-SE
71430 – GEC213-MVPS-3W

ProLine® CFL Electronic Ballasts

2 or 1 – CFQ13W/G24q 120-227V ProLine® PS

General characteristics	
Ballast Type	Electronic – Program / Rapid Start
Starting Method	Programmed start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	104°F (40°C)
Case Temperature (MAX)	70°C (158 °F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	End-of-Life Protection (EOL), Thermally protected, Universal voltage

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
71428, 71429, 71430			

Specifications by lamp and wattage											
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)	
F14T5	2	120	31	0.26 A	1.00	3.23	99	1.5	10	-20/-29	
	2	277	31	0.12 A	1.00	3.23	98	1.5	10	-20/-29	
F13T5	2	120	30	0.25 A	1.00	3.33	99	1.5	10	-20/-29	
	2	277	30	0.11 A	1.00	3.33	98	1.5	10	-20/-29	
CFTR13W/GX24q	1	120	29	0.25 A	1.00	3.45	99	1.5	10	-20/-29	
	1	277	29	0.11 A	1.00	3.45	99	1.5	10	-20/-29	
CFQ13W/G24q	1	120	16	0.16 A	1.00	6.25	96	1.5	10	-20/-29	
	1	277	16	0.06 A	1.00	6.25	96	1.5	10	-20/-29	
Other compatible lamps: CFQ18W/G24q, CFTR18W/GX24q, CFS16W/GR10q, CFS10W/GR10q	2	120	29	0.25 A	1.00	3.45	99	1.5	10	-20/-29	
	2	277	29	0.11 A	1.00	3.45	99	1.5	10	-20/-29	
	1	120	16	0.16 A	1.00	6.25	96	1.5	10	-20/-29	
	1	277	16	0.06 A	1.00	6.25	96	1.5	10	-20/-29	

Safety and performance  UL Type 1 Outdoor FCC Part 18 Class B at 120 Volts  UL Type HL FCC – CLASS B Consumer  UL Class P  CSA  UL Type CC  UL Listed

71432 – GEC218-MVPS-BES
71433 – GEC218-MVPS-SE
71434 – GEC218-MVPS-3W

ProLine® CFL Electronic Ballasts




2 or 1 – CFQ18W/G24q 120-227V ProLine® PS

General characteristics	
Ballast Type	Electronic – Program / Rapid start
Starting Method	Programmed start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	104°F (40°C)
Case Temperature (MAX)	70°C (158 °F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected, Universal voltage

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
71432, 71433, 71434			

Specifications by lamp and wattage											
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)	
CFS21W/GR10q	2	120	40	0.33 A	0.91	2.28	99	1.5	10	-20/-29	
	2	277	40	0.14 A	0.91	2.28	99	1.5	10	-20/-29	
CFTR18W/GX24q	1	120	20	0.16 A	0.9	4.50	97	1.5	15	-20/-29	
	1	277	20	0.07 A	0.9	4.50	97	1.5	15	-20/-29	
CFS16W/GR10q	2	120	39	0.33 A	1.05	2.69	97	1.5	10	-20/-29	
	2	277	39	0.14 A	1.05	2.69	97	1.5	10	-20/-29	
Other compatible lamps: CFTR26W/GX24q, CFQ26W/G24q, CFS28W/GR10q, CFQ18W/G24q	1	120	20	0.17 A	1.05	5.25	97	1.5	10	-20/-29	
	1	277	20	0.08 A	1.05	5.25	97	1.5	10	-20/-29	
	2	120	37	0.31 A	1.00	2.70	99	1.5	10	-20/-29	
	2	277	37	0.13 A	1.00	2.70	99	1.5	10	-20/-29	

Safety and performance  UL Type 1 Outdoor FCC Part 18 Class B at 120 volts FCC – CLASS B Consumer  UL Type HL  UL Class P  CSA  UL Type CC  UL Listed

- Multi-voltage technology means a single ballast handles voltage from 108V to 305V
- Programmed starting for extended lamp life
- End-of-Lamp-Life protection
- Color coded poke-in connectors simplifies wiring

Dimensions	
Wiring diagram – CFL 1-2 – see example on page 132	
Case dimensions – Ref Drawing -13 – see page 133	
Length (L)	5.0 in (127.00 mm)
Width (W)	2.4 in (60.96 mm)
Height (H)	1.0 in (25.40 mm)
Mounting dimensions	
Bracket Length (BL)	
Mount Length (M)	4.63 in (117.60 mm)
Mount Width (X or F)	2.4 in (60.96 mm)
Mount Slots (MS)	
Weight	0.57 lbs
Exit Type	Dual Entry (SE/BE, BES, 3W)
Remote Mounting Distance to Lamp	20 ft
Remote Mounting Wire Gauge	18 AWG

Dimensions	
Wiring diagram – CFL 1-2 – see example on page 132	
Case dimensions – Ref Drawing -13 – see page 133	
Length (L)	5.0 in (127.00 mm)
Width (W)	2.4 in (60.96 mm)
Height (H)	1.0 in (25.40 mm)
Mounting dimensions	
Bracket Length (BL)	
Mount Length (M)	4.63 in (117.60 mm)
Mount Width (X or F)	2.4 in (60.96 mm)
Mount Slots (MS)	
Weight	1.10 lbs
Exit Type	Dual Entry (SE/BE, BES, 3W)
Remote Mounting Distance to Lamp	20 ft
Remote Mounting Wire Gauge	18 AWG

Quick Reference Guides
Fluorescent Ballasts
T5
Fluorescent Ballasts
T12
Sign Ballasts
Compact Fluorescent Ballasts
HID Electronic Ballasts
HID Electromagnetic Ballasts

ProLine® CFL Electronic Ballasts

For 13 – 42W T4 CFL Lamps

- 71443 – GEC226-MVPS-BES
- 71444 – GEC226-MVPS-SE
- 71445 – GEC226-MVPS-3W

ProLine® CFL Electronic Ballasts

2 – CFQ26W, FT24 or 1 – 24W CFTR32 120-227V ProLine® PS

General characteristics	
Ballast Type	Electronic – Program / Rapid start
Starting Method	Programmed start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	104°F (40°C)
Case Temperature (MAX)	75°C (167°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto restart, Thermally protected, Universal voltage

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
71443, 71444, 71445			

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
CFTR26W/GX24q	2	120	54	0.45 A	1.00	1.85	99	1.5	10	-20/-29
	2	277	54	0.20 A	1.00	1.85	99	1.5	10	-20/-29
	1	120	29	0.24 A	1.10	3.79	98	1.5	10	-20/-29
	1	277	29	0.11 A	1.10	3.79	98	1.5	10	-20/-29
	1	120	51	0.43 A	1.00	1.96	99	1.5	10	-20/-29
	1	277	51	0.19 A	1.00	1.96	99	1.5	10	-20/-29
CFQ26W/G24q	2	120	27	0.23 A	1.00	3.70	98	1.5	10	-20/-29
	2	277	27	0.10 A	1.00	3.70	98	1.5	10	-20/-29
CFTR42W/GX24q	1	120	46	0.38 A	0.98	2.13	98	1.5	10	-20/-29
	1	277	46	0.17 A	0.98	2.13	98	1.5	10	-20/-29
CFTR32W/GX24q	1	120	36	0.31 A	0.98	2.72	98	1.5	10	-20/-29
	1	277	36	0.13 A	0.98	2.72	98	1.5	10	-20/-29

Other compatible lamps: F24T5/HO, CFS21W/GR10q, FT24W/2G11, FC16T9/40W

Safety and performance UL Type HL FCC – CLASS B Consumer FCC Part 18 Class B at 120 volts UL Type CC

47506 – C242UNVBES-IP

47509 – C242UNVSE-IP

ProLine® CFL Electronic Ballasts

2 – 42/36/32/26/24 watt CFL UNV Side Exit

General characteristics	
Ballast Type	Electronic – Program / Rapid start
Starting Method	Programmed start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	122°F (50°C)
Case Temperature (MAX)	75°C (167°F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto restart, Thermally protected, Universal voltage

Electrical characteristics	
Supply Current Frequency	50 Hz/60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
47506, 47509			

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
CFTR42W/4P	2	120	91	0.76 A	0.98	1.08	98	1.6	10	0/-18
	2	277	90	0.32 A	0.98	1.09	98	1.6	10	0/-18
	1	120	45	0.40 A	1.00	2.22	93	1.6	10	0/-18
	1	277	45	0.18 A	1.00	2.22	93	1.6	10	0/-18
	1	120	69	0.58 A	1.00	1.45	98	1.6	10	0/-18
	1	277	67	0.26 A	1.00	1.49	98	1.6	10	0/-18
CFTR32W/4P	2	120	56	0.46 A	1.02	1.82	95	1.6	10	0/-18
	2	277	65	0.20 A	1.02	1.85	95	1.6	10	0/-18

Other compatible lamps: FT55W/4P, FT36W/4P, FT24W/4P, FC9T522W/4P, FC12T555W/4P, FC12T540W/4P, CFTR70W/4P, CFTR57W/4P, CFS28W/4P, CFM3W/4P

Safety and performance UL Type HL FCC – CLASS A Non Consumer FCC Part 18 Class B at 120 volts UL Type CC

ProLine® CFL Electronic Ballasts

For 40W Biax® CFL Ballasts

80683 – C240PUNVHP-B-IP

ProLine® CFL Electronic Ballasts

2 or 1 – FT40W2G11 PS UNV

General characteristics	
Ballast Type	Electronic – Program / Rapid Start
Starting Method	Programmed start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70 °C (158 °F)
Ballast Factor	Normal
Power Factor Correction	Active
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected, Universal voltage

Electrical characteristics	
Supply Current Frequency	50 Hz /60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
80683			

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
FT40W/4P	2	120	76	0.63 A	0.90	1.18	98	1.5	10	0/-18
	2	277	73	0.26 A	0.90	1.23	98	1.5	10	0/-18
	1	120	41	0.34 A	1.00	2.43	95	1.5	10	0/-18
	1	277	40	0.15 A	1.00	2.50	95	1.5	10	0/-18

Safety and performance UL Type HL FCC – CLASS A Non-Consumer

80680 – C240SI120RH-IP

ProLine® CFL Electronic Ballasts

2 – FT40W/2G11 IS 120

General characteristics	
Ballast Type	Electronic – Standard Instant Start
Starting Method	Instant start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70 °C (158 °F)
Ballast Factor	Normal
Power Factor Correction	Passive
Sound Rating	A (20-24 decibels)
Additional Info	End-of-Life Protection (EOL), Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz /60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
80680			

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
FT40W/4P	2	120	67	0.61 A	0.88	1.31	95	1.7	20	50 / 10
	1	120	40	0.40 A	1.02	2.55	90	1.7	20	50 / 10

Safety and performance UL Type HL FCC – CLASS A Non-Consumer

- Electronic compact fluorescent ballasts for all general fluorescent applications
- Low-profile case

Dimensions	
Wiring diagram – CFL 20C – see example on page 131	
Case dimensions – Ref Drawing – B – see page 133	
Length (L)	9.5 in (241.30 mm)
Width (W)	1.5 in (38.10 mm)
Height (H)	1.0 in (25.40 mm)
Mounting dimensions	
Bracket Length (BL)	
Mount Length (M)	8.8 in (225.80 mm)
Mount Width (X or F)	0.8 in (22.35 mm)
Mount Slots (MS)	0.3 in (7.92 mm)
Weight	1.10 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	12 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
Length (± 1 in)	
Black	25 in (635 mm)
Blue and Red	33 in (838 mm)
Yellow	48 in (1219 mm)
White	25 in (635 mm)

- Electronic compact fluorescent ballasts for all general fluorescent applications
- Low-profile case

Dimensions	
Wiring diagram – CFL 18 – see example on page 131	
Case dimensions – Ref Drawing C6 – see page 133	
Length (L)	8.3 in (211.07 mm)
Width (W)	2.4 in (60.96 mm)
Height (H)	1.5 in (39.37 mm)
Mounting dimensions	
Bracket Length (BL)	9.5 in (241.30 mm)
Mount Length (M)	8.8 in (225.80 mm)
Mount Width (X or F)	1.6 in (42.87 mm)
Mount Slots (MS)	0.3 in (7.92 mm)
Weight	2.70 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	12 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
Length (± 1 in)	
Blue	33 in (838 mm)
Red	33 in (838 mm)
White	25 in (635 mm)
Black	25 in (635 mm)

ProLine® CFL Electronic Ballasts

For 40W Biax® CFL Ballasts

80681 – C240SI277RH-IP

ProLine® CFL Electronic Ballasts

2 – FT40W/2G11- IS 277

- Electronic compact fluorescent ballasts for all general fluorescent applications
- Low-profile case



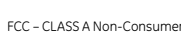



General characteristics	
Ballast Type	Electronic – Standard Instant Start
Starting Method	Instant start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70 °C (158 °F)
Ballast Factor	Normal
Power Factor Correction	Passive
Sound Rating	A (20-24 decibels)
Additional Info	End-of-Life Protection (EOL), Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz /60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
80681			

Dimensions	
Wiring diagram – CFL 1B – see example on page 131	
Case dimensions – Ref Drawing C6 – see page 133	
Length (L)	8.3 in (211.07 mm)
Width (W)	2.4 in (60.96 mm)
Height (H)	1.5 in (39.37 mm)
Mounting dimensions	
Bracket Length (BL)	9.5 in (241.30 mm)
Mount Length (M)	8.8 in (225.80 mm)
Mount Width (X or F)	1.6 in (42.87 mm)
Mount Slots (MS)	0.3 in (7.92 mm)
Weight	2.70 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	12 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
Length (± 1 in)	
Blue	33 in (838 mm)
Red	33 in (838 mm)
White	25 in (635 mm)
Black	25 in (635 mm)

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
FT40W/4P	2	277	67	0.27 A	0.88	1.31	95	1.7	20	50 / 10
	1	277	40	0.17 A	1.02	2.55	90	1.7	20	50 / 10

Safety and performance      

ProLine® CFL Electronic Ballasts

For 40W Biax® CFL Ballasts

80691 – C340SI277RH-IP

ProLine® CFL Electronic Ballasts

3 – FT40W/2G11 IS 277

- Electronic compact fluorescent ballasts for all general fluorescent applications
- Low-profile case



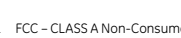



General characteristics	
Ballast Type	Electronic – Standard Instant Start
Starting Method	Instant start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70 °C (158 °F)
Ballast Factor	Normal
Power Factor Correction	Passive
Sound Rating	A (20-24 decibels)
Additional Info	End-of-Life Protection (EOL), Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz /60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
80691			

Dimensions	
Wiring diagram – CFL 51 – see example on page 131	
Case dimensions – Ref Drawing C6 – see page 133	
Length (L)	8.3 in (211.07 mm)
Width (W)	2.4 in (60.96 mm)
Height (H)	1.5 in (39.37 mm)
Mounting dimensions	
Bracket Length (BL)	9.5 in (241.30 mm)
Mount Length (M)	8.8 in (225.80 mm)
Mount Width (X or F)	1.6 in (42.87 mm)
Mount Slots (MS)	0.3 in (7.92 mm)
Weight	2.70 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	12 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
Length (± 1 in)	
Blue	33 in (838 mm)
Red	33 in (838 mm)
White	25 in (635 mm)
Black	25 in (635 mm)

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
FT40W/4P	3	277	98	0.39 A	0.88	0.89	95	1.7	20	50 / 10
	2	277	75	0.30 A	0.99	1.32	90	1.7	20	50 / 10

Safety and performance      

80690 – C340SI120RH-IP

ProLine® CFL Electronic Ballasts

3 – FT40W/2G11 IS 120

- Electronic compact fluorescent ballasts for all general fluorescent applications
- Low-profile case



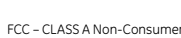



General characteristics	
Ballast Type	Electronic – Standard Instant Start
Starting Method	Instant start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	10%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	70 °C (158 °F)
Ballast Factor	Normal
Power Factor Correction	Passive
Sound Rating	A (20-24 decibels)
Additional Info	End-of-Life Protection (EOL), Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz /60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
80690			

Dimensions	
Wiring diagram – CFL 51 – see example on page 131	
Case dimensions – Ref Drawing C6 – see page 133	
Length (L)	8.3 in (211.07 mm)
Width (W)	2.4 in (60.96 mm)
Height (H)	1.5 in (39.37 mm)
Mounting dimensions	
Bracket Length (BL)	9.5 in (241.30 mm)
Mount Length (M)	8.8 in (225.80 mm)
Mount Width (X or F)	1.6 in (42.87 mm)
Mount Slots (MS)	0.3 in (7.92 mm)
Weight	2.70 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	12 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
Length (± 1 in)	
Blue	33 in (838 mm)
Red	33 in (838 mm)
White	25 in (635 mm)
Black	25 in (635 mm)

Specifications by lamp and wattage										
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
FT40W/4P	3	120	98	0.88 A	0.88	0.89	95	1.7	20	50 / 10
	2	120	75	0.68 A	0.99	1.32	90	1.7	20	50 / 10

Safety and performance      

ProLine® CFL Electronic Ballasts

For 5 – 26W Preheat CFL Lamps

87634 – GEM1CF579PH277

ProLine® CFL Electronic Ballasts

1 – CFT579Q9W/G23 Pre Heat 277 (4205F2P)

General characteristics	
Ballast Type	Magnetic – Preheat
Starting Method	Preheat
Lamp Wiring	Series
Line Voltage Regulation (+/-)	5%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
87634			

Specifications by lamp and wattage											
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)	
CFT7W/2P	1	277	11	0.16 A	0.90	8.18	25	1.7	15	25 / -4	
CFT9W/2P	1	277	11	0.15 A	0.85	7.72	27	1.7	15	25 / -4	
F8T5	1	277	11	0.14 A	1.00	9.09	50	1.7	15	25 / -4	
CFT5W/2P	1	277	10	0.18 A	1.00	10.00	22	1.7	15	25 / -4	
F6T5	1	277	9	0.15 A	0.95	10.55	45	1.7	15	25 / -4	
F4T5	1	277	8	0.16 A	0.95	11.87	40	1.7	15	25 / -4	

Safety and performance

• Magnetic compact fluorescent ballast construction for all general fluorescent lighting

Dimensions	
Wiring diagram – CFL 21 – see example on page 131	
Case dimensions – Ref Drawing 01 – see page 133	
Length (L)	2.8125 (71.43 mm)
Width (W)	1.1875 (30.16 mm)
Height (H)	1.6 in (41.14 mm)
Mounting dimensions	
Bracket Length (BL)	2.8 in (71.45 mm)
Mount Length (M)	2.3 in (60.45 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.1 in (4.77 mm)
Weight	0.60 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	10 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
Black	Length (± 1 in)
Black	7 in (178 mm)
Black	9 in (229 mm)

87533 – GEM1CF13PH120

ProLine® CFL Electronic Ballasts

1 – CFT/Q13W/GX23 Pre Heat 120 (4111H2P)

General characteristics	
Ballast Type	Magnetic – Preheat
Starting Method	Preheat
Lamp Wiring	Series
Line Voltage Regulation (+/-)	5%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	
Sound Rating	A (20-24 decibels)
Additional Info	Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
87533			

Specifications by lamp and wattage											
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)	
CFQ13W/2P	1	120	15	0.25 A	0.90	6.00	50	1.7	10	50 / 10	
CFT13W/2P	1	120	15	0.25 A	0.90	6.00	50	1.7	10	50 / 10	

Safety and performance

• Magnetic compact fluorescent ballast construction for all general fluorescent lighting

Dimensions	
Wiring diagram – CFL 21 – see example on page 131	
Case dimensions – Ref Drawing 2 – see page 133	
Length (L)	3.0 in (77.01 mm)
Width (W)	1.25 in (31.75 mm)
Height (H)	1.75 in (44.45 mm)
Mounting dimensions	
Bracket Length (BL)	3.0 in (77.01 mm)
Mount Length (M)	2.75 in (69.85 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.2 in (5.58 mm)
Weight	0.62 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	10 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
Black	Length (± 1 in)
Black	7 in (178 mm)
Black	9 in (229 mm)

CFL Magnetic Ballasts

For 5 – 26W Preheat CFL Lamps

87655 – GEM2CF13PH277

CFL Magnetic Ballasts

2 – CFT/Q13W/GX23 Pre Heat 277 (4214PBES)

General characteristics	
Ballast Type	Magnetic – Preheat
Starting Method	Preheat
Lamp Wiring	Series
Line Voltage Regulation (+/-)	5%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
87655			

Specifications by lamp and wattage											
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)	
CFQ13W/2P	2	277	32	0.12 A	0.90	2.81	95	1.7	30	25 / -4	
CFT13W/2P	2	277	32	0.12 A	0.90	2.81	95	1.7	30	25 / -4	

Safety and performance

87700 – GEM2CF24PH277

CFL Magnetic Ballasts

2 – CFQ26W/G24d Pre Heat 277 (4226PBES)

General characteristics	
Ballast Type	Magnetic – Preheat
Starting Method	Preheat
Lamp Wiring	Parallel
Line Voltage Regulation (+/-)	5%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
87700			

Specifications by lamp and wattage											
Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)	
CFQ26W/2P	2	277	55	0.25 A	0.90	1.63	97	1.5	30	25 / -4	
CFR26W/2P	2	277	55	0.25 A	0.90	1.63	97	1.5	30	25 / -4	

Safety and performance

• Magnetic compact fluorescent ballast construction for all general fluorescent lighting

Dimensions	
Wiring diagram – CFL 9 – see example on page 131	
Case dimensions – Ref Drawing 8 – see page 133	
Length (L)	4.75 in (120.65 mm)
Width (W)	2.1 in (55.62 mm)
Height (H)	1.6 in (41.40 mm)
Mounting dimensions	
Bracket Length (BL)	4.75 in (120.65 mm)
Mount Length (M)	4.375 in (111.12 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.2 in (5.58 mm)
Weight	1.60 lbs
Exit Type	Bottom
Remote Mounting Distance to Lamp	10 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
Blue	Length (± 1 in)
Black	12 in (305 mm)
White	12 in (305 mm)

• Magnetic compact fluorescent ballast construction for all general fluorescent lighting

Dimensions	
Wiring diagram – CFL 8 – see example on page 131	
Case dimensions – Ref Drawing 10 – see page 133	
Length (L)	6.5 in (166.62 mm)
Width (W)	2.3 in (60.45 mm)
Height (H)	1.6 in (42.92 mm)
Mounting dimensions	
Bracket Length (BL)	6.5 in (166.62 mm)
Mount Length (M)	6.0 in (152.40 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.3 in (7.87 mm)
Weight	2.93 lbs
Exit Type	Bottom
Remote Mounting Distance to Lamp	10 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
Blue	Length (± 1 in)
Black	15 in (381 mm)
White	15 in (381 mm)

CFL Magnetic Ballasts

For 36 – 40W CFL Lamps

87623 – GEM2FT36RS120

CFL Magnetic Ballasts
2 – FT36W/2G11 RS 120 (4150P)

General characteristics	
Ballast Type	Magnetic – Rapid Start
Starting Method	Rapid start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	5%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
87623			

Specifications by lamp and wattage

Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
FT36W/4P	2	120	78	0.70 A	0.96	1.23	93	1.7	20	50/10

Safety and performance

• Magnetic compact fluorescent ballast construction for all general fluorescent lighting

Dimensions	
Wiring diagram – CFL 5 – see example on page 132	
Case dimensions – Ref Drawing ST – see page 133	
Length (L)	9.5 in (241.30 mm)
Width (W)	2.3 in (60.45 mm)
Height (H)	1.5 in (39.37 mm)
Mounting dimensions	
Bracket Length (BL)	
Mount Length (M)	8.8 in (225.80 mm)
Mount Width (X or F)	1.6 in (42.92 mm)
Mount Slots (MS)	0.3 in (7.92 mm)
Weight	3.38 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	10 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
Length (± 1 in)	
White and Black	20 in (508 mm)
Blue and Red	20 in (508 mm)
Yellow	20 in (508 mm)

87625 – GEM2FT40RS120

CFL Magnetic Ballasts
2 – FT40W/2G11RS RS 120 (4152P)

General characteristics	
Ballast Type	Magnetic – Rapid Start
Starting Method	Rapid start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	5%
Ambient Temperature (MAX)	105°F (41°C)
Case Temperature (MAX)	90°C (194°F)
Ballast Factor	Normal
Power Factor Correction	
Sound Rating	A (20-24 decibels)
Additional Info	Auto-restart, Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information			
10 Pack	Pallet Pack	DIY Pack	IP Pack
87625			

Specifications by lamp and wattage

Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor	Power Factor % (>=)	Crest Factor (<=)	THD (<=)	Min. Starting Temp (°F/°C)
FT40W/4P	2	120	81	0.68 A	1.00	1.23	98	1.7	20	50/10

Safety and performance

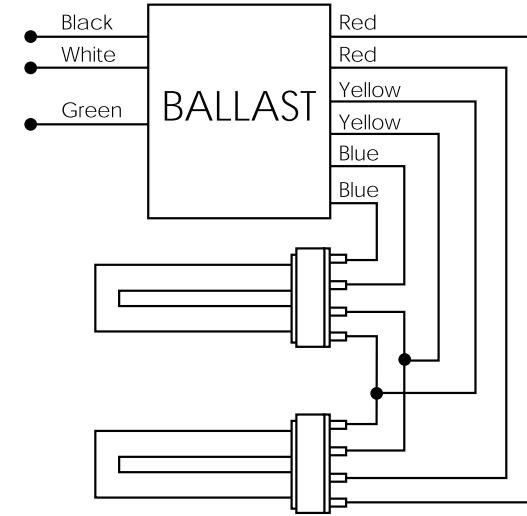
• Magnetic compact fluorescent ballast construction for all general fluorescent lighting

Dimensions	
Wiring diagram – CFL 5 – see example on page 132	
Case dimensions – Ref Drawing ST – see page 133	
Length (L)	9.5 in (241.30 mm)
Width (W)	2.3 in (60.45 mm)
Height (H)	1.5 in (39.37 mm)
Mounting dimensions	
Bracket Length (BL)	
Mount Length (M)	8.8 in (225.80 mm)
Mount Width (X or F)	1.6 in (42.92 mm)
Mount Slots (MS)	0.3 in (7.92 mm)
Weight	3.38 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	10 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
Length (± 1 in)	
White and Black	20 in (508 mm)
Blue and Red	20 in (508 mm)
Yellow	20 in (508 mm)

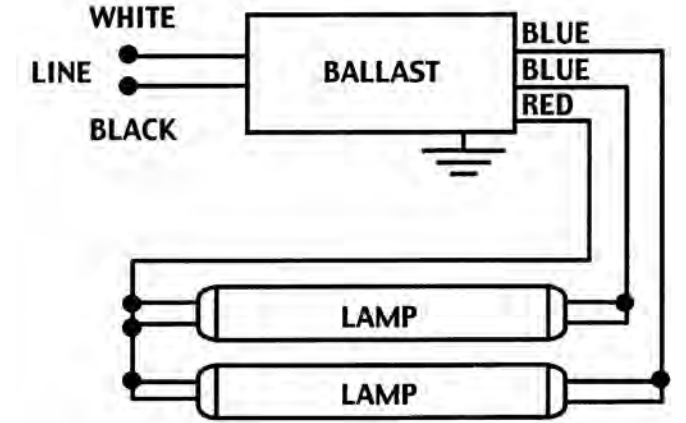
Wiring Diagrams

Compact Fluorescent Ballasts

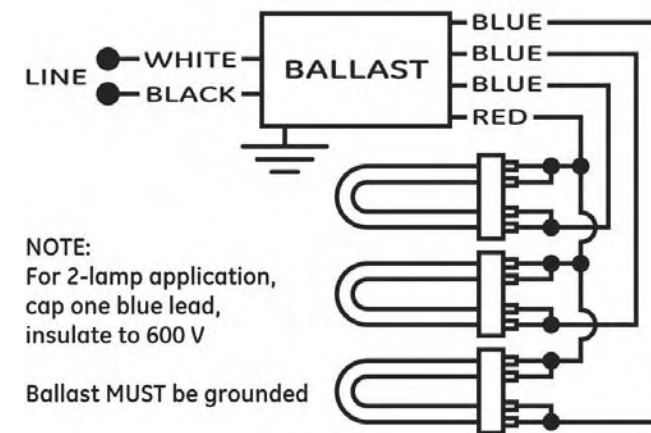
CFL 20C



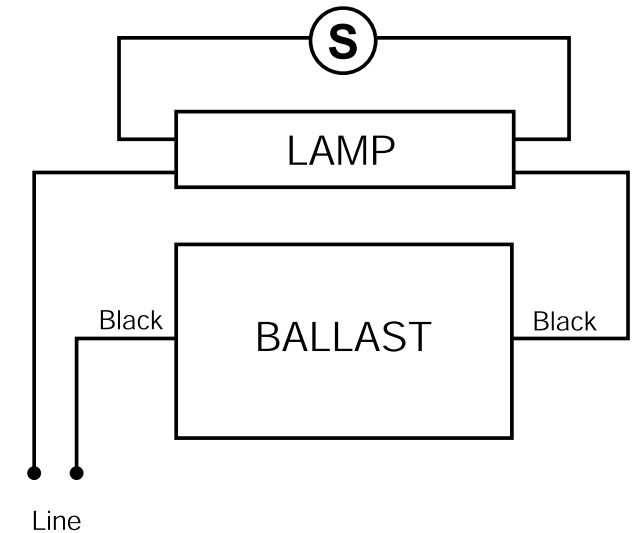
CFL 1B



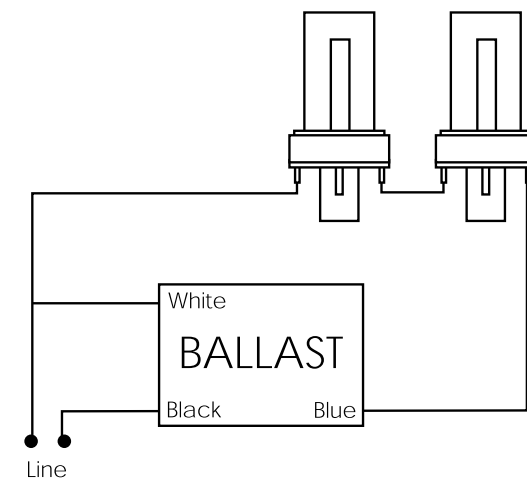
CFL 51



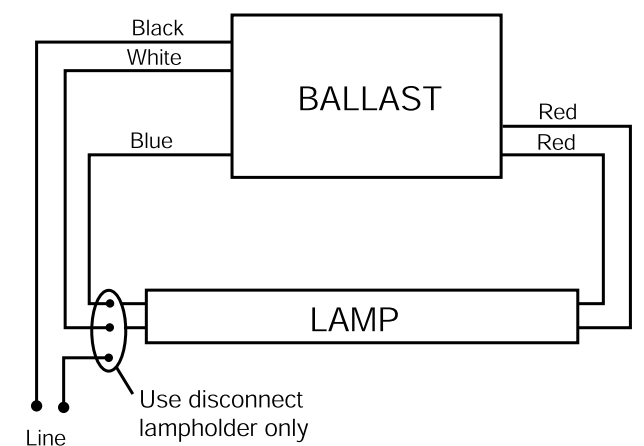
CFL 21



CFL 9



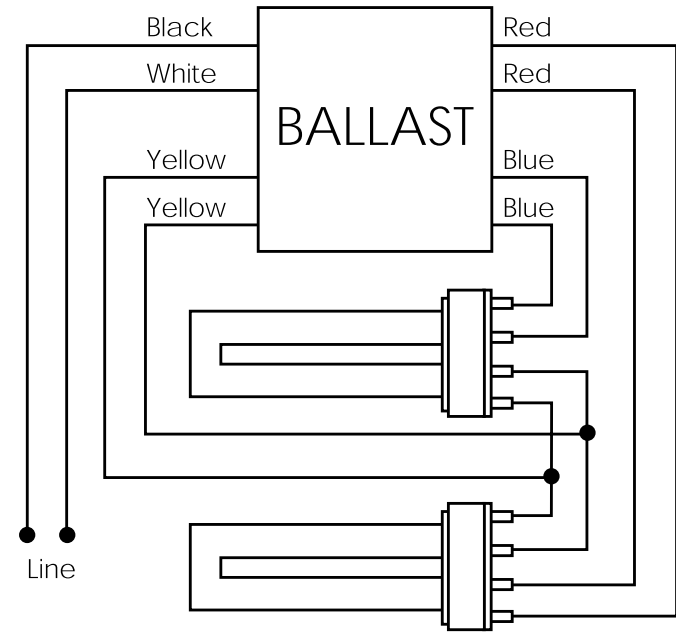
CFL 8



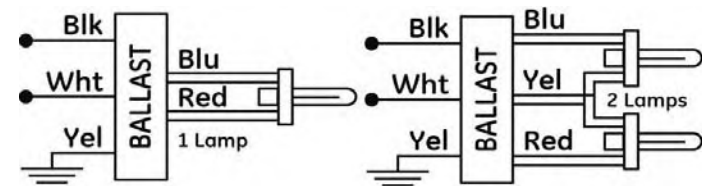
Wiring Diagrams

Compact Fluorescent Ballasts

CFL 5



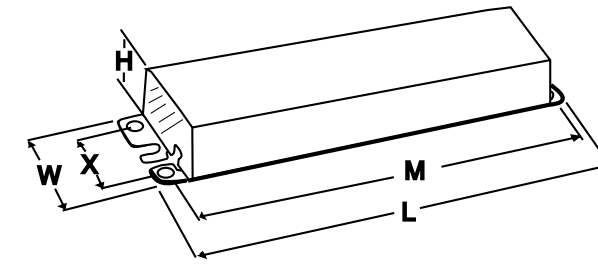
CFL 1-2



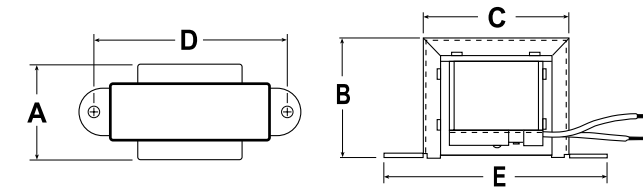
Case Dimensions

Compact Fluorescent Ballasts

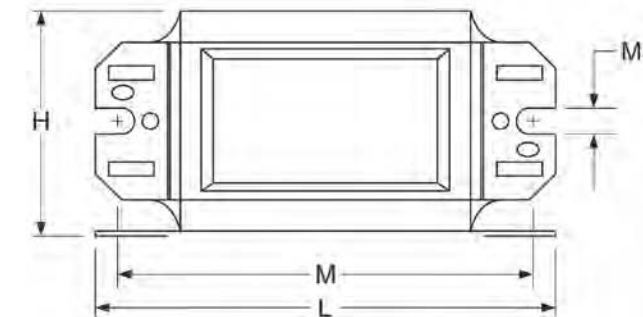
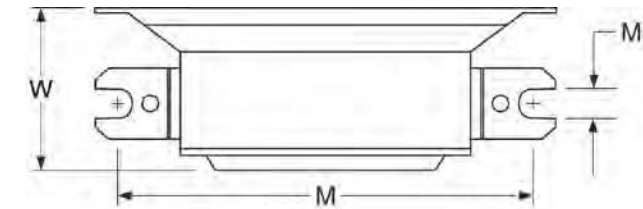
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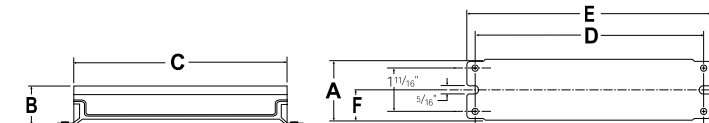
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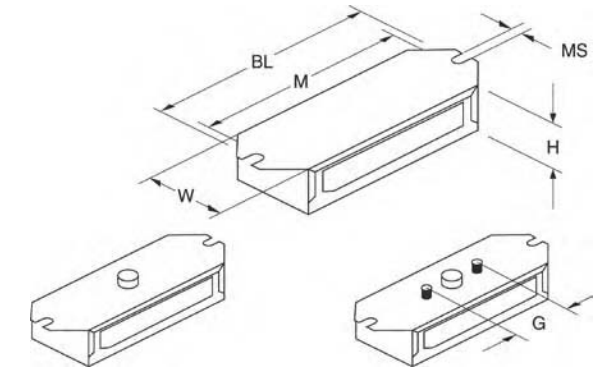
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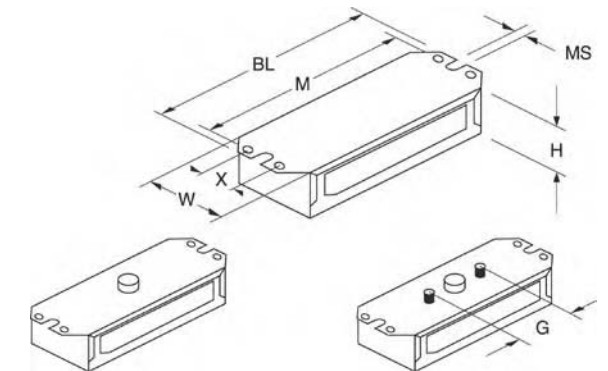
C6



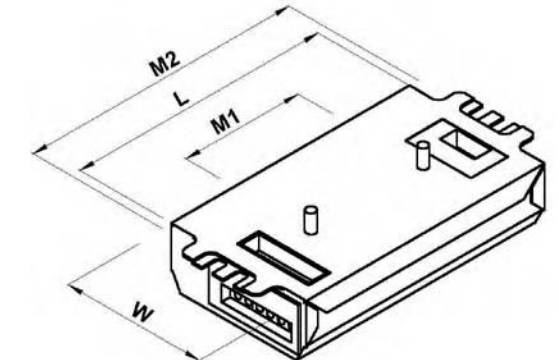
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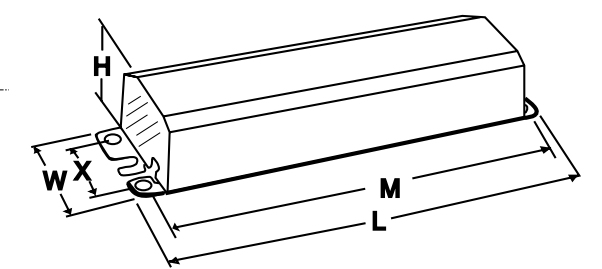
10



13



ST





Understanding Electronic UltraMax® HID Ballasts

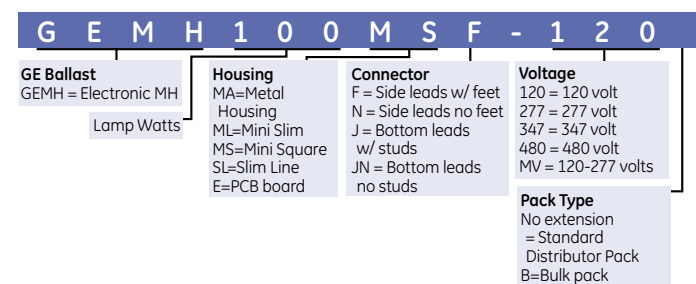
GE offers a complete line of electronic ballasts for HID lighting systems. Electronic HID, like **electronic fluorescent systems that preceded it**, significantly improve the performance of HID lighting. Electronic UltraMax® eHID Ballasts use solid-state components to start and operate HID lamps. Electronic eHID ballasts use IC chips to control and give feedback for optimal performance of the lighting system. GE eHID ballasts improve the efficiency, maintain higher lumens, enhance lamp life and color control, and operate more quietly than the magnetic core and coil ballast that they replace.

GE's line of UltraCool™ UltraMax® eHID ballasts can provide up to 70% energy savings and four times the life of standard halogen. End users can meet strict watts per square foot requirements while achieving significant wattage savings and color control with ceramic metal halide lamps and GE eHID ballasts.

GE's UltraMax® eHID ballasts operate **only pulse start and ceramic metal halide lamps**. **GE UltraMax® eHID ballasts operate lamps at a low frequency square wave** to maximize lamp performance. Extensive analysis of all brands of lamps suggests that the most compatible driving waveform for an electronic HID electronic ballast is a low-frequency squared wave (L.F.S.W.) with higher order harmonic content. L.F.S.W. has been established as a dependable method of ballasting low-wattage HID lamps with significant industry support. Analysis of lamp data has shown that there are limited operating bands between 1 kHz to 200 kHz in which electronic ballast could operate a lamp wattage family without causing unacceptable arc instability due to acoustic resonance. GE's UltraMax® eHID constantly measures and adjusts the wattage, optimizing the ceramic metal halide lamp performance.

GE high-wattage eHID ballasts will operate 250, 300, 320,350 or 400 watt pulse start or ceramic metal halide lamps with one ballast. The eHID Ballast with a PulseArc lamp will produce 70% more lumens per watt than the obsolete probe start magnetic core and coil system. Variable dimming to 50% power reduction is an option with GE eHID high wattage ballast.

GE Ballast HID Electronic nomenclature



See page 195 for warranty information.

Electronic HID For 20 – 150W Pulse Start HID Lamps

87490 – GEMH20-MLF-120

Electronic HID
1 – 20W M156 120V Electronic HID

General characteristics	
Ballast Type	Electronic - Low Frequency
ANSI Lamp Codes	M156
Voltage	120
Line Voltage Regulation (+/-)	10%
Circuit Type	Electronic
Insulation Class	
Type of Capacitor	
Capacitance	
Voltage (MIN)	
Capacitor Temperature Rating	
Ambient Temperature (MAX)	131°F (55°C)
Case Temperature (MAX)	85°C (185°F)
Sound Rating	A (20-24 decibels)
Additional Info	End-of-Life Protection (EOL), Inherent thermal protection

Electrical characteristics	
Lamp Operating Frequency	133 Hz
Supply Current Frequency	60 Hz/ 50 Hz/ Supply Current Frequency (MIN) / 50 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Case	1	12

Specifications by lamp and line voltage		
Lamp	Specifications by line voltage	
M156 20W Ceramic Metal Halide	System Wattage (W)	120
	Nominal Current	0.36 A
	Ballast Factor	1
	Ballast Efficiency Factor	0.89
	Open Circuit Voltage	4,000V
	Drop Out Voltage	96V
	Power Factor (≥)%	56
	Crest Factor (k)	1.40
	THD % (k)	79
	Min. Starting Temp (°F/°C)	0 / -18
	Fuse Rating	3
	UL Bench Top Rise	

Safety and performance RoHS Compliant ANSI - C62.41 UL 1029 Listed FCC-CLASS A Non-Consumer cUL Listed UL Listed

87501 – GEMH39-MSF-120

Electronic HID
1 – 39W M130 120V Electronic HID

General characteristics	
Ballast Type	Electronic - Low Frequency
ANSI Lamp Codes	M130
Voltage	120
Line Voltage Regulation (+/-)	10%
Circuit Type	
Insulation Class	
Type of Capacitor	
Capacitance	
Voltage (MIN)	
Capacitor Temperature Rating	
Ambient Temperature (MAX)	131°F (55°C)
Case Temperature (MAX)	90 °C (194 °F)
Sound Rating	A (20-24 decibels)
Additional Info	End-of-Life Protection (EOL), Thermally protected

Electrical characteristics	
Lamp Operating Frequency	130 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Case	1	10

Specifications by lamp and line voltage		
Lamp	Specifications by line voltage	
M130 39W Ceramic Metal Halide	System Wattage (W)	120
	Nominal Current	43.00
	Ballast Factor	0.37 A
	Ballast Efficiency Factor	1.00
	Open Circuit Voltage	0.91
	Drop Out Voltage	1.00
	Power Factor (≥)%	99
	Crest Factor (k)	99
	THD % (k)	6.80
	Min. Starting Temp (°F/°C)	0 / -18
	Fuse Rating	3
	UL Bench Top Rise	

Safety and performance RoHS Compliant UL Type 1 Outdoor ANSI - C62.41 Suitable for recessed use UL 1029 Listed cUL Listed UL Listed

See page 195 for warranty information.

- Light weight, low-profile housing
- Superior low-frequency square-wave-frequency design maximizes performance and life of ceramic metal halide lamps
- Ultra-slim can size for fixture design flexibility

Dimensions	
Wiring diagram WD-eHID MLF/MSF – see example on page 140	
Case dimensions – Ref Drawing MLF – see page 141	
Length (L)	3.7 in (94.99 mm)
Width (W)	1.5 in (39.87 mm)
Height (H)	1.0 in (25.40 mm)
Frame Size (H x L)	
Mounting dimensions	
Bracket Length (BL)	
Mount Length (M)	3.3 in (85.34 mm)
Mount Width (X or F)	1.1 in (30.22 mm)
Mount Slots (MS)	0.1 in (4.31 mm)
Weight	0.38 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	8 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
Black	
Brown	
White	
Red	

Dimensions	
Wiring diagram WD-eHID MLF/MSF – see example on page 140	
Case dimensions – Ref Drawing MSF – see page 141	
Length (L)	3.7 in (94.99 mm)
Width (W)	2.9 in (75.69 mm)
Height (H)	1.2 in (30.73 mm)
Frame Size (H x L)	
Mounting dimensions	
Bracket Length (BL)	
Mount Length (M)	3.3 in (86.10 mm)
Mount Width (X or F)	2.5 in (63.75 mm)
Mount Slots (MS)	0.1 in (4.31 mm)
Weight	0.38 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	8 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	
Black	
Brown	
White	
Red	

Electronic HID

For 20 – 150W Pulse Start HID Lamps

87516 – GEMH50-MSF-120

Electronic HID

1 – 50W, M110, M/C148, 120V. Electronic HID

General characteristics	
Ballast Type	Electronic – Low Frequency
ANSI Lamp Codes	M148, M110, C148
Voltage	120
Line Voltage Regulation (+/-)	10%
Circuit Type	Electronic
Insulation Class	
Type of Capacitor	
Capacitance	
Voltage (MIN)	
Capacitor Temperature Rating	
Ambient Temperature (MAX)	131°F (55°C)
Case Temperature (MAX)	90°C (194°F)
Sound Rating	A (20-24 decibels)
Additional Info	End of Life Protection (EOL), Thermally protected

Electrical characteristics	
Lamp Operating Frequency	130 Hz
Supply Current Frequency	60 Hz/50 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Case	1	10

Specifications by lamp and line voltage					
Lamp	Specifications by line voltage	Lamp	Specifications by line voltage		
M148 C148	120	M110 50W Quartz Metal Halide	120		
	System Wattage (W)		58	System Wattage (W)	58
	Nominal Current		0.48 A	Nominal Current	0.48 A
	Ballast Factor		1	Ballast Factor	1
	Ballast Efficiency Factor			Ballast Efficiency Factor	0.86
	Open Circuit Voltage			Open Circuit Voltage	
	Drop Out Voltage		96V	Drop Out Voltage	96V
	Power Factor (≥)%		99	Power Factor (≥)%	99
	Crest Factor (<)		1.4	Crest Factor (<)	1.4
	THD % (<)		6.9	THD % (<)	6.9
	Min. Starting Temp (°F/°C)		0 / -18	Min. Starting Temp (°F/°C)	0 / -18
	Fuse Rating		130	Fuse Rating	130
	UL Bench Top Rise			UL Bench Top Rise	

Safety and performance Housing meets UL94V0 flame retardant RoHS Compliant  UL Type 1 Outdoor ANSI – C62.41 UL 1029 Listed FCC-CLASS A Non-Consumer cUL Listed  UL Listed

87531 – GEMH70-MSF-120

Electronic HID

1 – 70W, M98, M/C143, 120V Electronic HID

General characteristics	
Ballast Type	Electronic – Low Frequency
ANSI Lamp Codes	M98, M143, M139, C143, C139
Voltage	120
Line Voltage Regulation (+/-)	10%
Circuit Type	
Insulation Class	
Type of Capacitor	
Capacitance	
Voltage (MIN)	
Capacitor Temperature Rating	
Ambient Temperature (MAX)	131°F (55°C)
Case Temperature (MAX)	90°C (194°F)
Sound Rating	A (20-24 decibels)
Additional Info	End of Life Protection (EOL), Thermally protected

Electrical characteristics	
Lamp Operating Frequency	130 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Case	1	10

Specifications by lamp and line voltage					
Lamp	Specifications by line voltage	Lamp	Specifications by line voltage		
M98, M143, M139, C143, C139	120	M110 50W Quartz Metal Halide	120		
	System Wattage (W)		77	System Wattage (W)	110
	Nominal Current		0.68 A	Nominal Current	0.93 A
	Ballast Factor		1.00	Ballast Factor	1
	Ballast Efficiency Factor		0.91	Ballast Efficiency Factor	0.93
	Open Circuit Voltage			Open Circuit Voltage	
	Drop Out Voltage			Drop Out Voltage	96V
	Power Factor (≥)%		99	Power Factor (≥)%	99
	Crest Factor (<)		1.4	Crest Factor (<)	1.4
	THD % (<)		8.3	THD % (<)	4.7
	Min. Starting Temp (°F/°C)		0 / -18	Min. Starting Temp (°F/°C)	0 / -18
	Fuse Rating		3	Fuse Rating	3
	UL Bench Top Rise			UL Bench Top Rise	

Safety and performance Housing meets UL94V0 flame retardant RoHS Compliant  UL Type 1 Outdoor ANSI – C62.41 UL 1029 Listed FCC-CLASS A Non-Consumer cUL Listed  UL Listed

Electronic HID

For 20 – 150W Pulse Start HID Lamps

87546 – GEMH70-SLJ-MV

Electronic HID

1 – 70W, M98, M/C143, 120V. Electronic HID

General characteristics	
Ballast Type	Electronic – Low Frequency
ANSI Lamp Codes	M98, M143, C143, M139, C139
Voltage	120/277
Line Voltage Regulation (+/-)	10%
Circuit Type	
Insulation Class	
Type of Capacitor	
Capacitance	
Voltage (MIN)	
Capacitor Temperature Rating	
Ambient Temperature (MAX)	131°F (55°C)
Case Temperature (MAX)	90°C (194°F)
Sound Rating	A (20-24 decibels)
Additional Info	End of Life Protection (EOL), Thermally protected

Electrical characteristics	
Lamp Operating Frequency	130 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Case	1	10

Specifications by lamp and line voltage				
Lamp	Specifications by Line Voltage	120	277	
M98, M143, M139, C143, C139	70W Ceramic	77	77	
	Metal Halide	Nominal Current	0.66 A	0.30 A
		Ballast Factor	1	1
		Ballast Efficiency Factor	0.91	0.91
	70W Quartz	Open Circuit Voltage		
		Drop Out Voltage	96V	96V
		Power Factor (≥)%	99	97
	Metal Halide	Crest Factor (<)	1.4	1.4
		THD % (<)	4.9	7.7
		Min. Starting Temp (°F/°C)	0 / -18	0 / -18
	Pulse Arc	Fuse Rating	3	3
		UL Bench Top Rise		

Safety and performance RoHS Compliant  UL Type 1 Outdoor ANSI – C62.41 UL 1029 Listed FCC-CLASS A Non-Consumer cUL Listed

87561 – GEMH100-SLJ-MV

Electronic HID

1 – 100W, M90, M/C140, 120V-277V Electronic HID

General characteristics	
Ballast Type	Electronic – Low Frequency
ANSI Lamp Codes	M90, M140, C140
Voltage	120/277
Line Voltage Regulation (+/-)	10%
Circuit Type	
Insulation Class	
Type of Capacitor	
Capacitance	
Voltage (MIN)	
Capacitor Temperature Rating	
Ambient Temperature (MAX)	131°F (55°C)
Case Temperature (MAX)	90°C (194°F)
Sound Rating	A (20-24 decibels)
Additional Info	End of Life Protection (EOL), Thermally protected

Electrical characteristics	
Lamp Operating Frequency	130 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Case	1	10

Specifications by lamp and line voltage							
Lamp	Specifications by line voltage	120	277	Lamp	Specifications by line voltage		
M90, M140	100W Ceramic	110	107	C140	System Wattage (W)		
	Metal Halide	Nominal Current	0.93 A		0.41 A	Nominal Current	110
		Ballast Factor	1		1	Ballast Factor	1.07
		Ballast Efficiency Factor	0.91		0.93	Ballast Efficiency Factor	0.93 A
	100W Quartz	Open Circuit Voltage				Open Circuit Voltage	1
		Drop Out Voltage	96V		96V	Drop Out Voltage	1
		Power Factor (≥)%	99		98	Power Factor (≥)%	1
	Metal Halide	Crest Factor (<)	1.4		1.4	Crest Factor (<)	1.4
		THD % (<)	4.7		7.8	THD % (<)	1.4
		Min. Starting Temp (°F/°C)	0 / -18		0 / -18	Min. Starting Temp (°F/°C)	4.7
		Fuse Rating	3		3	Fuse Rating	0 / -18
		UL Bench Top Rise				UL Bench Top Rise	3

Safety and performance RoHS Compliant  UL Type 1 Outdoor ANSI – C62.41 UL 1029 Listed cUL Listed

Dimensions	
Wiring diagram WD-eHID SLJ – see example on page 140	
Case dimensions – Ref Drawing SLJ – see page 141	
Length (L)	7.2 in (184.91 mm)
Width (W)	2.5 in (65.53 mm)
Height (H)	2.2 in (55.88 mm)
Frame Size (H x L)	
Mounting dimensions	
Bracket Length (BL)	
Mount Length (M)	0.4 in (10.92 mm)
Mount Width (X or F)	
Mount Slots (MS)	
Weight	0.38 lbs
Exit Type	Bottom Leads with Studs
Remote Mounting Distance to Lamp	8 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	Qty Exit Length (± 1 in)
Black	1 Left 10 in (254 mm)
Brown	1 Right 10 in (254 mm)
White	1 Left 10 in (254 mm)
Red	1 Right 10 in (254 mm)

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Case	1	10

Specifications by lamp and line voltage				
Lamp	Specifications by Line Voltage	120	277	
M98, M143, M139, C143, C139	70W Ceramic	77	77	
	Metal Halide	Nominal Current	0.66 A	0.30 A
		Ballast Factor	1	1
		Ballast Efficiency Factor	0.91	0.91
	70W Quartz	Open Circuit Voltage		
		Drop Out Voltage	96V	96V
		Power Factor (≥)%	99	97
	Metal Halide	Crest Factor (<)	1.4	1.4
		THD % (<)	4.9	7.7
		Min. Starting Temp (°F/°C)	0 / -18	0 / -18
	Pulse Arc	Fuse Rating	3	3
		UL Bench Top Rise		

Safety and performance RoHS Compliant  UL Type 1 Outdoor ANSI – C62.41 UL 1029 Listed FCC-CLASS A Non-Consumer cUL Listed

87561 – GEMH100-SLJ-MV


Electronic HID

1 – 100W, M90, M/C140, 120V-277V Electronic HID

Dimensions	
Wiring diagram WD – eHID SLJ – see example on page 140	
Case dimensions – Ref Drawing SLJ – see page 141	
Length (L)	7.2 in (184.91 mm)
Width (W)	2.5 in (65.53 mm)
Height (H)	2.2 in (55.88 mm)
Frame Size (H x L)	
Mounting dimensions	
Bracket Length (BL)	
Mount Length (M)	0.4 in (10.92 mm)
Mount Width (X or F)	
Mount Slots (MS)	
Weight	0.38 lbs
Exit Type	Bottom Leads with Studs
Remote Mounting Distance to Lamp	8 ft
Remote Mounting Wire Gauge	18 AWG
Lead lengths	Qty Exit Length (± 1 in)
Black	1 Left 10 in (254 mm)
Brown	1 Right 10 in (254 mm)
White	1 Left 10 in (254 mm)
Red	1 Right 10 in (254 mm)

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Case	1	10

Specifications by lamp and line voltage							
Lamp	Specifications by line voltage	120	277	Lamp	Specifications by line voltage		
M90, M140	100W Ceramic	110	107	C140	System Wattage (W)		
	Metal Halide	Nominal Current	0.93 A		0.41 A	Nominal Current	110
		Ballast Factor	1		1	Ballast Factor	1.07
		Ballast Efficiency Factor	0.91		0.93	Ballast Efficiency Factor	0.93 A
	100W Quartz	Open Circuit Voltage				Open Circuit Voltage	1
		Drop Out Voltage	96V		96V	Drop Out Voltage	1
		Power Factor (≥)%	99		98	Power Factor (≥)%	1
	Metal Halide	Crest Factor (<)	1.4		1.4	Crest Factor (<)	1.4
		THD % (<)	4.7		7.8	THD % (<)	1.4
		Min. Starting Temp (°F/°C)	0 / -18		0 / -18	Min. Starting Temp (°F/°C)	4.7
		Fuse Rating	3		3	Fuse Rating	0 / -18
		UL Bench Top Rise				UL Bench Top Rise	3

Safety and performance RoHS Compliant  UL Type 1 Outdoor ANSI – C62.41 UL 1029 Listed cUL Listed

Electronic HID

For 20 – 150W Pulse Start HID Lamps

87576 – GEMH150-SLJ-MV

Electronic HID

1 – 150W, M102, M/C142, 120V-277V Electronic HID

General characteristics	
Ballast Type	Electronic - Low Frequency
ANSI Lamp Codes	M142, M102, C142
Voltage	120/277
Line Voltage Regulation (+/-)	10%
Circuit Type	
Insulation Class	
Type of Capacitor	
Capacitance	
Voltage (MIN)	
Capacitor Temperature Rating	
Ambient Temperature (MAX)	131°F (55°C)
Case Temperature (MAX)	85°C (185°F)
Sound Rating	A (20-24 decibels)
Additional Info	End of Life Protection (EOL), Thermally protected

Electrical characteristics	
Lamp Operating Frequency	130 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Case	1	10

Specifications by lamp and line voltage							
Lamp	Specifications by line voltage		Lamp	Specifications by line voltage			
M102, M142 150W Quartz Metal Halide, 150W Ceramic Metal Halide	System Wattage (W)	120 167	277 164	C142	System Wattage (W)	120 167	277 164
	Nominal Current	1.44 A	0.62 A		Nominal Current	1.44 A	0.62 A
	Ballast Factor	1	1		Ballast Factor	1	1
	Ballast Efficiency Factor	0.90	0.91		Ballast Efficiency Factor		
	Open Circuit Voltage				Open Circuit Voltage		
	Drop Out Voltage	96V	96V		Drop Out Voltage	96V	96V
	Power Factor (≥)%	99	99		Power Factor (≥)%	99	99
	Crest Factor (<)	1.4	1.4		Crest Factor (<)	1.4	1.4
	THD % (<)	4.2	10.6		THD % (<)	4.2	10.6
	Min. Starting Temp (°F/°C)	0 / -18	0 / -18		Min. Starting Temp (°F/°C)	0 / -18	0 / -18
Fuse Rating	3	3	Fuse Rating	3	3		
UL Bench Top Rise			UL Bench Top Rise				

Safety and performance RoHS Compliant UL Type 1 Outdoor ANSI - C62.41 UL 1029 Listed FCC-CLASS A Non-Consumer cUL Listed

Dimensions			
Wiring diagram WD-eHID SLJ - see example on page 140			
Case dimensions - Ref Drawing SLJ - see page 141			
Length (L)	7.2 in (184.91 mm)		
Width (W)	2.5 in (65.53 mm)		
Height (H)	2.2 in (55.88 mm)		
Frame Size (H x L)			
Mounting dimensions			
Bracket Length (BL)			
Mount Length (M)	0.4 in (10.92 mm)		
Mount Width (X or F)			
Mount Slots (MS)			
Weight	0.38 lbs		
Exit Type	Bottom Leads with Studs		
Remote Mounting Distance to Lamp	8 ft		
Remote Mounting Wire Gauge	18 AWG		
Lead lengths			
	Qty	Exit	Length (± 1 in)
Black	1	Left	10 in (254 mm)
Brown	1	Right	10 in (254 mm)
White	1	Left	10 in (254 mm)
Red	1	Right	10 in (254 mm)

Electronic HID

For 250 – 400W Pulse Start HID Lamps

29377 – GE-MH-250-400-MA

Electronic HID

1 – 250 to 400W, UltraMax® HID, Electronic, 208-277, 50-60 Hz

General characteristics	
Ballast Type	Electronic - Dimming
ANSI Lamp Codes	M155, M153, M138, M135, M132, M131, M154
Voltage	208/240/277
Line Voltage Regulation (+/-)	10%
Circuit Type	Electronic
Insulation Class	
Type of Capacitor	
Capacitance	
Voltage (MIN)	
Capacitor Temperature Rating	
Ambient Temperature (MAX)	130°F (54°C)
Case Temperature (MAX)	
Sound Rating	A (20-24 decibels)
Additional Info	Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/ 60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Standard Pack	1	1

Specifications by lamp and line voltage									
Lamp	Specifications by line voltage			Lamp	Specifications by line voltage				
M155, M135 400W Quartz Metal Halide	System Wattage (W)	208 431	240 431	277 428	M154, M132 320W Quartz Metal Halide	System Wattage (W)	208 346	240 346	277 343
	Nominal Current	2.23 A	1.92 A	1.65 A		Nominal Current	1.79 A	1.54 A	1.34 A
	Ballast Factor	1	1	1		Ballast Factor	1	1	1
	Ballast Efficiency Factor	0.93	0.93	0.93		Ballast Efficiency Factor	0.92	0.92	0.93
	Open Circuit Voltage					Open Circuit Voltage			
	Drop Out Voltage					Drop Out Voltage			
	Power Factor (≥)%	99	99	99		Power Factor (≥)%	99	99	99
	Crest Factor (<)	1	1	1		Crest Factor (<)			
	THD % (<)	15	15	15		THD % (<)	15	15	15
	Min. Starting Temp (°F/°C)	-20 / -29	-20 / -29	-20 / -29		Min. Starting Temp (°F/°C)	-20 / -29	-20 / -29	-20 / -29
Fuse Rating				Fuse Rating					
UL Bench Top Rise				UL Bench Top Rise					

*Specifications by lamp and line voltage limited to two charts, please see gelighting.com for additional lamps.

Safety and performance UL Type 1 Outdoor UL Type HL UL Class P FCC-CLASS A Non-Consumer cUL Listed UL Listed

89646 – GEMH250-400M-V50

Electronic HID

1 – 250 to 400W, UltraMax® HID, Dimming, 208-277, 50-60Hz

General characteristics	
Ballast Type	Electronic - Dimming
ANSI Lamp Codes	M155, M153, M138, M135, M132, M131
Voltage	208/240/277
Line Voltage Regulation (+/-)	10%
Circuit Type	Electronic
Insulation Class	
Type of Capacitor	
Capacitance	
Voltage (MIN)	
Capacitor Temperature Rating	
Ambient Temperature (MAX)	130°F (54°C)
Case Temperature (MAX)	
Sound Rating	A (20-24 decibels)
Additional Info	Thermally protected

Electrical characteristics	
Supply Current Frequency	50 Hz/ 60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Standard Pack	1	1

Specifications by lamp & line voltage									
Lamp	Specifications by line voltage			Lamp	Specifications by line voltage				
M155, M135 400W Quartz Metal Halide	System Wattage (W)	208 431	240 431	277 428	M154, M132 320W Quartz Metal Halide	System Wattage (W)	208 346	240 346	277 343
	Nominal Current	2.23 A	1.92 A	1.65 A		Nominal Current	1.79 A	1.54 A	1.34 A
	Ballast Factor	1	1	1		Ballast Factor	1	1	1
	Ballast Efficiency Factor	0.93	0.93	0.93		Ballast Efficiency Factor	0.92	0.92	0.93
	Open Circuit Voltage					Open Circuit Voltage			
	Drop Out Voltage					Drop Out Voltage			
	Power Factor (≥)%	99	99	99		Power Factor (≥)%	99	99	99
	Crest Factor (<)	1	1	1		Crest Factor (<)			
	THD % (<)	15	15	15		THD % (<)	15	15	15
	Min. Starting Temp (°F/°C)	-20 / -29	-20 / -29	-20 / -29		Min. Starting Temp (°F/°C)	-20 / -29	-20 / -29	-20 / -29
Fuse Rating				Fuse Rating					
UL Bench Top Rise				UL Bench Top Rise					

*Specifications by lamp and line voltage limited to two charts, please see gelighting.com for additional lamps.

Safety and performance UL Type 1 Outdoor UL Type HL Housing meets UL94V0 flame retardant RoHS Compliant UL Listed
UL 1029 Listed FCC-CLASS A Non-Consumer cUL Listed ANSI - C62.41

- High efficiency electronic ballast provides 48% less ballast losses compared to electromagnetic CWA ballasts
- Improves lumen maintenance by 10 points on pulse start lamps
- Multi-voltage technology handles voltage from 208 to 277V

Dimensions			
Wiring diagram eHID - see example on page 140			
Case dimensions - Ref Drawing eHID - Bracket - see page 141			
Length (L)	14.9 in (378.66 mm)		
Width (W)	14.9 in (378.66 mm)		
Height (H)	9.3 in (237.79 mm)		
Frame Size (H x L)			
Mounting dimensions			
Bracket Length (BL)	6.5 in (165.10 mm)		
Mount Length (M)			
Mount Width (X or F)			
Mount Slots (MS)			
Weight	10.20 lbs		
Exit Type	Bottom		
Remote Mounting Distance to Lamp			
Remote Mounting Wire Gauge			
Lead lengths			
	Qty	Exit	Length (± 1 in)
Black and Green	1	Bottom	9 in (229 mm)
Brown and Red	1	Bottom	10 in (254 mm)
White	1	Bottom	9 in (229 mm)
Yellow	2	Bottom	9 in (229 mm)



Understanding Electromagnetic HID Ballasts

GE offers High Intensity Discharge (HID) ballasts for mercury, pulse start metal halide, probe start metal halide over 150 watts, like fluorescent, are electric discharge lamps and require an open circuit voltage of nearly two times the operating voltage to initiate the arc between the two electrodes in the arc tube. High pressure sodium, pulse start metal halide and probe start metal halide lamps 150 watts or less require an ignitor to initiate the high voltage to start the lamps. The ballasts provide the starting voltage with the igniter, where required, and provides stability for the lamp. HID lamps have negative impedance characteristics and would draw current until destruction unless a ballast was in place to regulate the current.

HID lamps take several minutes to warm-up and reach full light output. If power is interrupted between the lamp and the ballast, the arc will extinguish and lamp will go out. The lamp must cool down and reduce the vapor pressure before it will re-start. Typical warm-up and restrike times are as follows:

Light Source	Warm-Up Time	Restrike Time
Mercury	5-7 minutes	3-6 minutes
Metal Halide (Probe Start)	3-4 minutes	10-20 minutes
Metal Halide (Pulse Start)	2 minutes	3-4 minutes
High Pressure Sodium	7-10 minutes	1/2-1 minute

GE HID Ballast Types

CORE AND COIL

The most common HID ballasts are the core and coil and is used in 90% of the fixture applications. Core and coil ballasts consist of one, two or three copper (or aluminum) coils on a core of electrical-grade steel laminations. HID ballasts are classified by the kind of circuit they use: Reactor (R), High Reactance autotransformer (HX), Constant Wattage Autotransformer (CWA), Regulated lag (Reg Lag) or Electronic. HID ballast are also classified as high power factor (HPF) or normal power factor (NPF).

GE HID ballast 150 watts or less have High Reactance Autotransformer circuits and high power factor (HX-HPF). GE HID ballast greater than 150 watts have Constant Wattage Autotransformer circuits and are high power factor (HPF).

CWA ballast is the most common circuit for core and coil ballast. CWA circuits provide for stable light regulation. The CWA circuit consists of a high reactance autotransformer with a capacitor in series with the lamp resulting with high power factor ballast. In most CWA ballast circuits a 10% drop in line voltage will only reduce the light output and wattage by 5%. The CWA circuit ballast requires an igniter for QMH pulse start, ceramic metal halide and HPS lamps. Igniters are also required for QMH lamps 150 watts or less.

Distributor Ballast Kits

GE stocks a comprehensive inventory of **quad and 5-tap HID voltage ballast kits**. The kits contain the appropriate core and coil, capacitor, ignitor (where required), mounting bracket, mounting hardware and instructions to allow the stocking distributor to meet the needs of their customer while minimizing their investment in component parts. The quad ballast kit has color-coded leads to identify voltages and operates at 120/208/240/277. **The 5-tap HID ballast kits also include 480-volt applications** and are listed as ML5, though GE also offers single-voltage kits for 480-volt with 120-volt taps for stand-by lighting.

Also available for metal halide and high pressure sodium applications is the **5-tap ballast-lamp replacement kit listed as -55**. This easy-to-carry, convenient, all-in-one kit, ensures ballast-lamp compatibility by including the lamp as well.

Igniters and capacitors, where required, are included with the quad and 5-tap ballast kits.

Capacitors

Most GE capacitors and ignitors are sold in ballast kits that come pre-wired and reduce labor cost. Capacitors and ignitors are also sold separately.

Power factor capacitors are used to reduce the negative effects that inductive devices (HID ballast) have on power factor ratings. GE sells a complete line of capacitors that must be properly matched to the lamp and HID ballast. GE capacitors have bleed-in resistors and use biodegradable, nontoxic (no PCBs) dielectric fluid.

GE Oil-filled Capacitors are packaged in metal cases (up to 520V ratings). All GE capacitors are designed for 60,000 hours of continuous life.

Dry Capacitors do not contain oil and are manufactured with plastic casing. Dry casings are rated up 100°C maximum. Dry capacitors are designed and rated for AC voltages below 400V at 50 or 60Hz.

Igniters

Igniters are also sold in individual cartons for replacement needs. Igniters supply a high voltage pulse to ionize the gas creating the glow discharge. Once the lamp is started the ignitor stops providing the pulse. Igniters are designed to last thousand of hours; however, if the lamp fails or the socket is empty, the ignitor will continue to pulse. The lamps should be replaced or the fixture turned off to prevent premature failure of the ignitor.

Standard igniters are supplied with metal halide ballast 150 watts or less, pulse start metal halide and high-pressure sodium ballast. There are several different igniters that meet the needs of many GE lamp and ballast combinations. The appropriate ignitor is listed in the catalog under the ballast specifications.

Potted Core and Coil Ballast

GE potted core and coil ballasts are designed for applications requiring quieter or cooler operation than provided by standard coil and coil ballast. The potting material is sand-filled polyester which provides excellent sound-deadening and heat-transfer qualities.

F-Can Ballast

GE F-Can ballast is recommended for indoor applications and where ballast noise must be minimized. F-Can ballast are encased in fluorescent ballast-type cans and potted with asphalt insulating materials to minimize noise.

Ballast Date and Temperature Codes

Date Codes

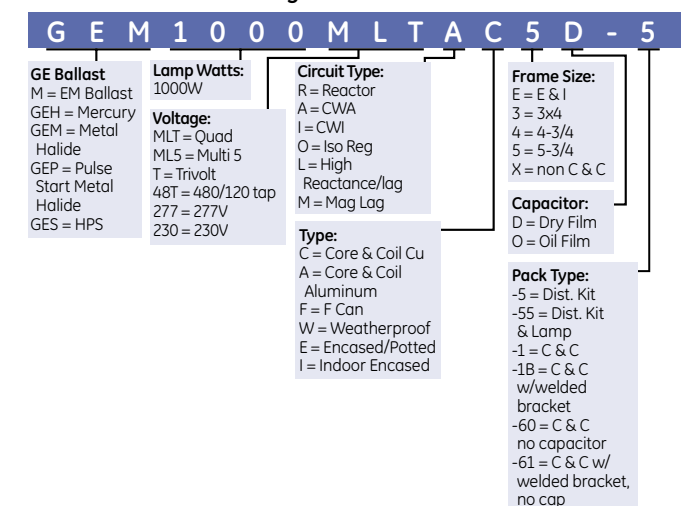
GE HID core and coil ballast manufacturing date codes are located on the top end of the core. They are printed in white and indicate year, month manufactured, and order the ballast was manufactured in the month. A code of 070100001 would indicate manufacture date of 07 (year 2007), 01 (month of January), and 00001 would be the manufacturing sequence.

UL Bench Top Temperature Code

To help with UL inspection, the UL Bench top code is listed on the GE label on the core and coil ballast as 1029X. X is the temperature code and represented by the following temperature classifications: A, B, C, D, E and F.

UL Bench Top Letter Code	Temperature Range for Class H (180C) Ballast
A	Less than 75C
B	75C < 80C
C	80C < 85C
D	85C < 90C
E	90C < 95C
F	95C < 100C

GE Ballast HID Electromagnetic nomenclature



Metal Halide

For 20 – 175W Metal Halide HID Lamps

86824 – GEM50MLTLC3D-5

Metal Halide

1 – 50W MH M110 or M148 Quad (120/208/240/277V)

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	M110 or M148
Voltage	120/208/240/277
Line Voltage Regulation (+/-)	5%
Circuit Type	HX-HPF
Insulation Class	180C
Type of Capacitor	Dry film
Capacitance	6 Mfd
Voltage (MIN)	280
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	MH350-1A
Sound Rating	
Additional Info	

Electrical characteristics

Supply Current Frequency	60 Hz
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Order information

Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	6

Specifications by lamp and line voltage

Lamp	Specifications by line voltage			
	120	208	240	277
M110, M148				
50W Quartz Metal Halide				
System Wattage (W)	61	61	61	61
Nominal Current	0.60 A	0.30 A	0.30 A	0.20 A
Ballast Factor	1	1	1	1
Ballast Efficiency Factor	0.82	0.82	0.82	0.82
Max Input Current	1.16 A	0.67 A	0.58 A	0.50 A
Starting Current	0.61 A	0.34 A	0.30 A	0.26 A
Open Circuit Voltage	264V	264V	264V	264V
Drop Out Voltage	96V	166V	192V	222V
Power Factor (≥)%	90	90	90	90
Min. Starting Temp (°F/°C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30
Fuse Rating	3	3	2	2
UL Bench Top Rise	C	C	C	C

Safety and performance

cUL Listed  UL Listed

86847 – GEM70MLTLC3D-5

Metal Halide

1 – 70W MH M98 or M143 Quad (120/208/240/277V)

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	M98 or M143
Voltage	120/208/240/277
Line Voltage Regulation (+/-)	5%
Circuit Type	HX-HPF
Insulation Class	180C
Type of Capacitor	Dry film
Capacitance	8 Mfd
Voltage (MIN)	280
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	MH350-1A
Sound Rating	
Additional Info	

Electrical characteristics

Supply Current Frequency	60 Hz
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Order information

Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	6

Specifications by lamp and line voltage

Lamp	Specifications by line voltage			
	120	208	240	277
M98, M143				
70W Ceramic Metal Halide				
System Wattage (W)	88	88	88	88
Nominal Current	0.90 A	0.50 A	0.40 A	0.40 A
Ballast Factor	1	1	1	1
Ballast Efficiency Factor	0.80	0.80	0.80	0.80
Max Input Current	1.51 A	0.88 A	0.75 A	0.66 A
Starting Current	0.96 A	0.59 A	0.49 A	0.44 A
Open Circuit Voltage	257V	257V	257V	257V
Drop Out Voltage	96V	166V	192V	222V
Power Factor (≥)%	90	90	90	90
Min. Starting Temp (°F/°C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30
Fuse Rating	4	3	3	2
UL Bench Top Rise	A	A	A	A

Safety and performance

cUL Listed  UL Listed

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement
- Quad ballast (120, 208, 240, 277)

Dimensions	
Wiring diagram HID W-(H)-86824-86847 – see example on page 182	
Case dimensions – Ref Drawing PC1 – see page 185	
Length (L)	5.25 in (133.35 mm)
Width (W)	1.25 in (31.75 mm)
Mounting dimensions	
Mount Length (M)	4.6 in (116.84 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	1.0
B	2.0
Weight	3.40 lbs
Exit Type	Side
Nominal Length	2.7 in (68.58 mm)
Frame Size (H x L)	2.813 in x 3.939 in

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement
- Quad ballast (120, 208, 240, 277)

Dimensions	
Wiring diagram HID W-(H)-86824-86847 – see example on page 182	
Case dimensions – Ref Drawing PC1 – see page 185	
Length (L)	5.25 in (133.35 mm)
Width (W)	1.25 in (31.75 mm)
Mounting dimensions	
Mount Length (M)	4.6 in (116.84 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	2.0
B	3.0
Weight	5.00 lbs
Exit Type	Side
Nominal Length	2.7 in (68.58 mm)
Frame Size (H x L)	2.813 in x 3.939 in

Metal Halide

For 20 – 175W Metal Halide HID Lamps

86839 – GEM7048TLC3D-5

Metal Halide

1 – 70W MH M98 or M143 480

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	M98
Voltage	480
Line Voltage Regulation (+/-)	5%
Circuit Type	HX-HPF
Insulation Class	180C
Type of Capacitor	Dry film
Capacitance	8 Mfd
Voltage (MIN)	280
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	
Sound Rating	
Additional Info	

Electrical characteristics

Supply Current Frequency	60 Hz
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Order information

Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	6

Specifications by lamp and line voltage

Lamp	Specifications by line voltage	
	480	
M98		
70W Ceramic Metal Halide		
System Wattage (W)	89	
Nominal Current	0.20 A	
Ballast Factor	1	
Ballast Efficiency Factor	0.79	
Max Input Current	0.44 A	
Starting Current	0.16 A	
Open Circuit Voltage	253V	
Drop Out Voltage	384V	
Power Factor (≥)%	90	
Min. Starting Temp (°F/°C)	-22 / -30	
Fuse Rating	1	
UL Bench Top Rise	C	

Safety and performance

cUL Listed  UL Listed

86675 – GEM100MLTLC3D-5

Metal Halide

1 – 100W MH M90 or M140 Quad (120/208/240/277V)

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	M92, M90, M140
Voltage	120/208/240/277
Line Voltage Regulation (+/-)	5%
Circuit Type	HX-HPF
Insulation Class	180C
Type of Capacitor	Dry film
Capacitance	12 Mfd
Voltage (MIN)	280
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	
Sound Rating	
Additional Info	

Electrical characteristics

Supply Current Frequency	60 Hz
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Order information

Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	6

Specifications by lamp and line voltage

Lamp	Specifications by line voltage				Lamp	Specifications by line voltage			
	120	208	240	277		120	208	240	277
M92					M90, M140				
70W Ceramic Metal Halide					100W Ceramic Metal Halide				
System Wattage (W)	119	119	119	119	System Wattage (W)	119	119	119	119
Nominal Current	1.10 A	0.60 A	0.50 A	0.50 A	Nominal Current	1.10 A	0.60 A	0.50 A	0.50 A
Ballast Factor	1	1	1	1	Ballast Factor	1	1	1	1
Ballast Efficiency Factor					Ballast Efficiency Factor	0.84	0.84	0.84	0.84
Max Input Current	2.27 A	1.30 A	1.13 A	0.98 A	Max Input Current	2.27 A	1.30 A	1.13 A	0.98 A
Starting Current	1.26 A	0.69 A	0.60 A	0.53 A	Starting Current	1.26 A	0.69 A	0.60 A	0.53 A
Open Circuit Voltage	274V	274V	274V	274V	Open Circuit Voltage	274V	274V	274V	274V
Drop Out Voltage	96V	166V	192V	222V	Drop Out Voltage	96V	166V	192V	222V
Power Factor (≥)%	90	90	90	90	Power factor (≥)%	90	90	90	90
Min. Starting Temp (°F/°C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30	Min. starting temperature	-22 / -30	-22 / -30	-22 / -30	-22 / -30
Fuse Rating	5	4	3	3	Fuse rating	5	4	3	3
UL Bench Top Rise	D	D	D	D	UL bench top rise	D	D	D	D

Safety and performance

cUL Listed  UL Listed

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement

Dimensions	
Wiring diagram HID H6 – see example on page 180	
Case dimensions – Ref Drawing PC1 – see page 185	
Length (L)	5.25 in (133.35 mm)
Width (W)	1.25 in (31.75 mm)
Mounting dimensions	
Mount Length (M)	4.6 in (116.84 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	2.0
B	2.0
Weight	5.00 lbs
Exit Type	Side
Nominal Length	2.7 in (68.58 mm)
Frame Size (H x L)	2.813 in x 3.939 in

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement
- Quad ballast (120, 208, 240, 277)

Dimensions	
Wiring diagram HID W-(H)-86675-86718 – see example on page 182	
Case dimensions – Ref Drawing PC1 – see page 185	
Length (L)	5.25 in (133.35 mm)
Width (W)	1.25 in (31.75 mm)
Mounting dimensions	
Mount Length (M)	4.6 in (116.84 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	2.0
B	3.0
Weight	5.00 lbs
Exit Type	Side
Nominal Length	2.7 in (68.58 mm)
Frame Size (H x L)	2.813 in x 3.939 in

Metal Halide

For 20 – 175W Metal Halide HID Lamps

86667 – GEM10048TLC3D-5

Metal Halide

1 – 100W MH M90 or M140 480

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	M90 or M140
Voltage	480
Line Voltage Regulation (+/-)	5%
Circuit Type	HX-HPF
Insulation Class	180C
Type of Capacitor	Dry film
Capacitance	12 Mfd
Voltage (MIN)	280
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	MH350-1A
Sound Rating	
Additional Info	

Electrical characteristics

Supply Current Frequency	60 Hz
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Order information

Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	6

Specifications by lamp and line voltage

Lamp	Specifications by line voltage	
M90, M140		480
100W Ceramic Metal Halide	System Wattage (W)	120
	Nominal Current	0.30 A
	Ballast Factor	1
	Ballast Efficiency Factor	
	Max Input Current	0.56 A
	Starting Current	0.33 A
	Open Circuit Voltage	271V
	Drop Out Voltage	384V
	Power Factor (≥)%	90
	Min. Starting Temp (°F/°C)	-22 / -30
	Fuse Rating	2
	UL Bench Top Rise	C

Safety and performance

cUL Listed  UL Listed

86718 – GEM150MLTLC3D-5

Metal Halide

1 – 150W MH M102 or M142 Quad (120/208/240/277V)

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	M142, M102
Voltage	120/208/240/277
Line Voltage Regulation (+/-)	5%
Circuit Type	HX-HPF
Insulation Class	180C
Type of Capacitor	Dry film
Capacitance	16 Mfd
Voltage (MIN)	300
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	MH350-1A
Sound Rating	
Additional Info	

Electrical characteristics

Supply Current Frequency	60 Hz
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Order information

Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	6

Specifications by lamp and line voltage

Lamp	Specifications by line voltage			
M142, M102	120	208	240	277
150W Ceramic Metal Halide	System Wattage (W)	186	186	186
	Nominal Current	1.60 A	1.00 A	0.80 A
	Ballast Factor	1	1	1
	Ballast Efficiency Factor	0.81	0.81	0.81
	Max Input Current	3.37 A	1.95 A	1.68 A
	Starting Current	1.86 A	1.03 A	0.89 A
	Open Circuit Voltage	257V	257V	257V
	Drop Out Voltage	96V	166V	192V
	Power Factor (≥)%	90	90	90
	Min. Starting Temp (°F/°C)	-22 / -30	-22 / -30	-22 / -30
	Fuse Rating	10	5	5
	UL Bench Top Rise	A	B	A

Safety and performance

cUL Listed  UL Listed

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and igniter (if required) and all other components required for ballast replacement

Dimensions

Wiring diagram HID W-(F)-87068-86667 – see example on page 182

Case dimensions – Ref Drawing PC1 – see page 185

Length (L)	5.25 in (133.35 mm)
Width (W)	1.25 in (31.75 mm)

Mounting dimensions

Mount Length (M)	4.6 in (116.84 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	2.0
B	3.0
Weight	5.00 lbs
Exit Type	Side
Nominal Length	2.7 in (68.58 mm)
Frame Size (H x L)	2.813 in x 3.939 in

Electrical characteristics

Supply Current Frequency	60 Hz
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Order information

Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	6

Specifications by lamp and line voltage

Lamp	Specifications by line voltage		Lamp	Specifications by line voltage	
M102, M142		480	M107		480
150W Ceramic Metal Halide	System Wattage (W)	185	System Wattage (W)	185	
	Nominal Current	0.40 A	Nominal Current	0.40 A	
	Ballast Factor	1	Ballast Factor	1	
	Ballast Efficiency Factor	0.81	Ballast Efficiency Factor	0.83	
	Max Input Current	0.85 A	Max Input Current	0.85 A	
	Starting Current	0.38 A	Starting Current	0.38 A	
	Open Circuit Voltage	264V	Open Circuit Voltage	264V	
	Drop Out Voltage	384V	Drop Out Voltage	384V	
	Power Factor (≥)%	90	Power Factor (≥)%	90	
	Min. Starting Temp (°F/°C)	-22 / -30	Min. Starting Temp (°F/°C)	-22 / -30	
	Fuse Rating	2	Fuse Rating	2	
	UL Bench Top Rise	E	UL Bench Top Rise	E	

Safety and performance

cUL Listed  UL Listed

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and igniter (if required) and all other components required for ballast replacement
- Quad ballast (120, 208, 240, 277)

Dimensions

Wiring diagram HID W-(H)-86675-86718 – see example on page 182

Case dimensions – Ref Drawing PC1 – see page 185

Length (L)	5.25 in (133.35 mm)
Width (W)	1.25 in (31.75 mm)

Mounting dimensions

Mount Length (M)	4.6 in (116.84 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	2.3
B	4.0
Weight	7.00 lbs
Exit Type	Side
Nominal Length	2.7 in (68.58 mm)
Frame Size (H x L)	2.813 in x 3.939 in

Electrical characteristics

Supply Current Frequency	60 Hz
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Order information

Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	6

Specifications by lamp and line voltage

Lamp	Specifications by line voltage			
M142, M102	120	208	240	277
150W Ceramic Metal Halide	System Wattage (W)	202	202	202
	Nominal Current	1.70 A	1.00 A	0.80 A
	Ballast Factor	1	1	1
	Ballast Efficiency Factor	0.87	0.87	0.87
	Max Input Current	1.70 A	1.00 A	0.90 A
	Starting Current	0.60 A	0.37 A	0.32 A
	Open Circuit Voltage	307V	307V	307V
	Drop Out Voltage	96V	166V	192V
	Power Factor (≥)%	90	90	90
	Min. Starting Temp (°F/°C)	-22 / -30	-22 / -30	-22 / -30
	Fuse Rating	5	3	2
	UL Bench Top Rise	D	C	C

Safety and performance

cUL Listed  UL Listed

Metal Halide

For 20 – 175W Metal Halide HID Lamps

86711 – GEM15048TLC3D-5

Metal Halide

1 – 150W MH M102 or M142 480

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	M142, M102, M107
Voltage	480
Line Voltage Regulation (+/-)	5%
Circuit Type	HX-HPF
Insulation Class	180C
Type of Capacitor	Dry film
Capacitance	16 Mfd
Voltage (MIN)	280
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	MH350-1A
Sound Rating	
Additional Info	

Electrical characteristics

Supply Current Frequency	60 Hz
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Order information

Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	6

Specifications by lamp and line voltage

Lamp	Specifications by line voltage		Lamp	Specifications by line voltage	
M102, M142		480	M107		480
150W Ceramic Metal Halide	System Wattage (W)	185	System Wattage (W)	185	
	Nominal Current	0.40 A	Nominal Current	0.40 A	
	Ballast Factor	1	Ballast Factor	1	
	Ballast Efficiency Factor	0.81	Ballast Efficiency Factor	0.83	
	Max Input Current	0.85 A	Max Input Current	0.85 A	
	Starting Current	0.38 A	Starting Current	0.38 A	
	Open Circuit Voltage	264V	Open Circuit Voltage	264V	
	Drop Out Voltage	384V	Drop Out Voltage	384V	
	Power Factor (≥)%	90	Power Factor (≥)%	90	
	Min. Starting Temp (°F/°C)	-22 / -30	Min. Starting Temp (°F/°C)	-22 / -30	
	Fuse Rating	2	Fuse Rating	2	
	UL Bench Top Rise	E	UL Bench Top Rise	E	

Safety and performance

cUL Listed  UL Listed

87210 – GEM175ML5AC3-5

Metal Halide

1 – 175W MH M57 or H39 5-Tap (120/208/240/277/480V)

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	M57, H39, M109
Voltage	120/208/240/277/480
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil filled
Capacitance	10 Mfd
Voltage (MIN)	400
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	
Sound Rating	
Additional Info	

Electrical characteristics

Supply Current Frequency	60 Hz
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Order information

Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	6

Specifications by lamp and line voltage

Lamp	Specifications by line voltage				
M57, H39, M109	120	208	240	277	480
175W Ceramic Metal Halide	System Wattage (W)	202	202	202	202
	Nominal Current	1.70 A	1.00 A	0.90 A	0.40 A
	Ballast Factor	1	1	1	1
	Ballast Efficiency Factor	0.87	0.87	0.87	0.87
	Max Input Current	1.70 A	1.00 A	0.90 A	0.40 A
	Starting Current	0.60 A	0.37 A	0.32 A	0.21 A
	Open Circuit Voltage	307V	307V	307V	307V
	Drop Out Voltage	96V	166V	192V	222V
	Power Factor (≥)%	90	90	90	90
	Min. Starting Temp (°F/°C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30
	Fuse Rating	5	3	2	1.5
	UL Bench Top Rise	D	C	C	C

Safety and performance

cUL Listed  UL Listed

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and igniter (if required) and all other components required for ballast replacement

Dimensions

Wiring diagram HID W-(E)-87087-86711-86876 – see example on page 182

Case dimensions – Ref Drawing PC1 – see page 185

Length (L)	5.25 in (133.35 mm)
Width (W)	1.25 in (31.75 mm)

Mounting dimensions

Mount Length (M)	4.6 in (116.84 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	2.3
B	3.9
Weight	7.00 lbs
Exit Type	Side
Nominal Length	2.7 in (68.58 mm)
Frame Size (H x L)	2.813 in x 3.939 in

Electrical characteristics

Supply Current Frequency	60 Hz
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Order information

Type	No. Items Per Sales Unit	No. Items Per Standard Package

Metal Halide

For 20 – 175W Metal Halide HID Lamps

86741 – GEM175MLTAC3-5

Metal Halide

1 – 175W MH M57 or H39 Quad (120/208/240/277V)

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	M57, M107, H39
Voltage	120/208/240/277
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil filled
Capacitance	10 Mfd
Voltage (MIN)	400
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	
Sound Rating	
Additional Info	

Electrical characteristics

Supply Current Frequency	60 Hz
--------------------------	-------

Order information

Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	6

Specifications by lamp and line voltage

Lamp	Specifications by line voltage				Lamp	Specifications by line voltage			
	120	208	240	277		120	208	240	277
M57, H39					M107				
175W Quartz Metal Halide	System Wattage (W) 210	210	210	210	System Wattage (W) 210	210	210	210	210
150W Quartz Metal Halide	Nominal Current 1.80 A	1.00 A	0.90 A	0.80 A	Nominal Current 1.80 A	1.00 A	0.90 A	0.80 A	0.80 A
175W Mercury	Ballast Factor 1	1	1	1	Ballast Factor 1	1	1	1	1
	Ballast Efficiency Factor 0.83	0.83	0.83	0.83	Ballast Efficiency Factor 0.83	0.83	0.83	0.83	0.83
	Max Input Current 1.80 A	1.00 A	0.90 A	0.80 A	Max Input Current 1.80 A	1.00 A	0.90 A	0.80 A	0.80 A
	Starting Current 0.96 A	0.56 A	0.48 A	0.42 A	Starting Current 0.96 A	0.56 A	0.48 A	0.42 A	0.42 A
	Open Circuit Voltage 302V	302V	302V	302V	Open Circuit Voltage 302V	302V	302V	302V	302V
	Drop Out Voltage 96V	166V	192V	222V	Drop Out Voltage 96V	166V	192V	222V	222V
	Power Factor (≥)% 90	90	90	90	Power factor (≥)% 90	90	90	90	90
	Min. Starting Temp -22 / -30	-22 / -30	-22 / -30	-22 / -30	Min. starting temperature -22 / -30	-22 / -30	-22 / -30	-22 / -30	-22 / -30
	Fuse Rating 5	3	3	2	Fuse rating 5	3	3	2	2
	UL Bench Top Rise B	B	B	C	UL bench top rise B	B	B	B	C

Safety and performance



- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement
- Quad ballast (120, 208, 240, 277)

Dimensions	
Wiring diagram HID W-(C)-86655-86698-86741 – see example on page 181	
Case dimensions – Ref Drawing PC1 – see page 185	
Length (L)	5.25 in (133.35 mm)
Width (W)	1.25 in (31.75 mm)
Mounting dimensions	
Mount Length (M)	4.6 in (116.84 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	1.0
B	2.0
Weight	3.40 lbs
Exit Type	Side
Nominal Length	2.7 in (68.58 mm)
Frame Size (H x L)	2.813 in x 3.939 in

Metal Halide

For 250 – 1500W Metal Halide HID Lamps

87211 – GEM250ML5AC3-5

Metal Halide

1 – 250W MH M58 or H37 5-Tap (120/208/240/277/480V)

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	M58, H37
Voltage	120/208/240/277/480
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil filled
Capacitance	15 Mfd
Voltage (MIN)	400
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	
Sound Rating	
Additional Info	

Electrical characteristics

Supply Current Frequency	60 Hz
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Order information

Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	6

Specifications by lamp and line voltage

Lamp	Specifications by line voltage				
	120	208	240	277	480
M58, H37					
250W Quartz Metal Halide	System Wattage (W) 280	280	280	280	280
175W Quartz Metal Halide	Nominal Current 2.50 A	1.40 A	1.25 A	1.10 A	0.65 A
250W Mercury	Ballast Factor 1	1	1	1	1
	Ballast Efficiency Factor 0.89	0.89	0.89	0.89	0.89
	Max Input Current 2.60 A	1.60 A	1.30 A	1.20 A	0.70 A
	Starting Current 1.50 A	1.00 A	0.80 A	0.70 A	0.50 A
	Open Circuit Voltage 290V	290V	290V	290V	290V
	Drop Out Voltage 96V	166V	192V	222V	384V
	Power Factor (≥)% 90	90	90	90	90
	Min. Starting Temp (°F/°C) -22 / -30	-22 / -30	-22 / -30	-22 / -30	-22 / -30
	Fuse Rating 8	5	4	3	2
	UL Bench Top Rise B	B	B	C	C

Safety and performance



86765 – GEM250MLTAC3-5

Metal Halide

1 – 250W MH M58 or H37 Quad (120/208/240/277V)

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	M58, H37
Voltage	120/208/240/277
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil filled
Capacitance	15 Mfd
Voltage (MIN)	400
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	
Sound Rating	
Additional Info	

Electrical characteristics

Supply Current Frequency	60 Hz
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Order information

Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	6

Specifications by lamp and line voltage

Lamp	Specifications by line voltage			
	120	208	240	277
M58, H37				
250W Quartz Metal Halide	System Wattage (W) 294	294	294	294
175W Quartz Metal Halide	Nominal Current 2.65 A	1.50 A	1.30 A	1.13 A
250W Mercury	Ballast Factor 1	1	1	1
	Ballast Efficiency Factor 0.85	0.85	0.85	0.85
	Max Input Current 2.60 A	1.58 A	1.30 A	1.12 A
	Starting Current 1.88 A	1.15 A	0.95 A	0.86 A
	Open Circuit Voltage 315V	315V	315V	315V
	Drop Out Voltage 96V	166V	192V	222V
	Power Factor (≥)% 90	90	90	90
	Min. Starting Temp (°F/°C) -22 / -30	-22 / -30	-22 / -30	-22 / -30
	Fuse Rating 8	5	4	3
	UL Bench Top Rise C	D	C	C

Safety and performance



- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement
- 5-tap ballast (120, 208, 240, 277, or 480 volt) featuring a 480-volt tap

Dimensions	
Wiring diagram HID W-(K)-86808-87210-87211 – see example on page 183	
Case dimensions – Ref Drawing PC1 – see page 185	
Length (L)	5.25 in (133.35 mm)
Width (W)	1.25 in (31.75 mm)
Mounting dimensions	
Mount Length (M)	4.6 in (116.84 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	3.0
B	4.3
Weight	9.00 lbs
Exit Type	Side
Nominal Length	3.2 in (82.55 mm)
Frame Size (H x L)	2.813 in x 3.939 in
Lead lengths	
Orange	
Violet and Black	
Violet/White	
Black/Yellow	

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement
- Quad ballast (120, 208, 240, 277)

Dimensions	
Wiring diagram HID W-(C)-86765-86814 – see example on page 181	
Case dimensions – Ref Drawing PC1 – see page 185	
Length (L)	5.25 in (133.35 mm)
Width (W)	1.25 in (31.75 mm)
Mounting dimensions	
Mount Length (M)	4.6 in (116.84 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	3.0
B	4.3
Weight	9.00 lbs
Exit Type	Side
Nominal Length	3.2 in (82.55 mm)
Frame Size (H x L)	2.813 in x 3.939 in

Metal Halide

For 250 – 1500W Metal Halide HID Lamps

87212 – GEM250ML5AC4-5

Metal Halide

1 – 250W MH M58 or H37 5-Tap (120/208/240/277/480V)

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	M58, H37
Voltage	120/208/240/277/480
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil filled
Capacitance	15 Mfd
Voltage (MIN)	400
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	
Sound Rating	
Additional Info	

Electrical characteristics

Supply Current Frequency	60 Hz
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Order information

Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	3

Specifications by lamp and line voltage

Lamp	Specifications by line voltage				
M58, H37	120	208	240	277	480
System Wattage (W)	293	293	293	293	293
Nominal Current	4.00 A	2.30 A	2.00 A	1.70 A	1.00 A
Ballast Factor	1	1	1	1	1
Ballast Efficiency Factor	0.85	0.85	0.85	0.85	0.85
Max Input Current	2.50 A	1.40 A	1.30 A	1.10 A	0.65 A
Starting Current	2.50 A	1.40 A	1.20 A	1.00 A	0.60 A
Open Circuit Voltage	300V	300V	300V	300V	300V
Drop Out Voltage	96V	166V	192V	222V	384V
Power Factor (≥)%	90	90	90	90	90
Min. Starting Temp (*F/°C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30	-22 / -30
Fuse Rating	8	5	4	3	2
UL Bench Top Rise	A	A	A	A	A

Safety and performance

cUL Listed  UL Listed

72300 – GEM400ML5AA4-5

Metal Halide

1 – 400W MH M59 or H33 5-Tap (120/208/240/277/480V) A1 C&C

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	M59, H33
Voltage	120/208/240/277/480
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil filled
Capacitance	24 Mfd
Voltage (MIN)	400
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	
Sound Rating	
Additional Info	

Electrical characteristics

Supply Current Frequency	60 Hz
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Order information

Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	3

Specifications by lamp and line voltage

Lamp	Specifications by line voltage				
M59, H33	120	208	240	277	480
400W Quartz Metal Halide	446	446	446	446	446
Nominal Current	3.70 A	2.10 A	1.90 A	1.60 A	0.90 A
Ballast Factor	1	1	1	1	1
Ballast Efficiency Factor	0.92	0.92	0.92	0.92	0.92
Max Input Current	3.70 A	2.10 A	1.90 A	1.60 A	0.90 A
Starting Current	2.19 A	1.31 A	1.11 A	1.00 A	0.60 A
Open Circuit Voltage	300V	300V	300V	300V	300V
Drop Out Voltage	96V	166V	192V	222V	384V
Power Factor (≥)%	90	90	90	90	90
Min. Starting Temp (*F/°C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30	-22 / -30
Fuse Rating	10	8	5	5	5
UL Bench Top Rise	E	E	E	E	E

Safety and performance

cUL Listed  UL Listed

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement
- 5-tap ballast (120, 208, 240, 277, or 480 volt) featuring a 480-volt tap

Dimensions

Wiring diagram HID W-(K)-87212-87213 – see example on page 183

Case dimensions – Ref Drawing PC2 – see page 185

Length (L)	5.25 in (133.35 mm)
Width (W)	1.25 in (31.75 mm)

Mounting dimensions

Mount Length (M)	4.6 in (116.84 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	1.8
B	3.6
Weight	10.80 lbs
Exit Type	Side
Nominal Length	3.2 in (82.55 mm)
Frame Size (H x L)	4.25 in x 4.75 in

Lead lengths

Orange	
Violet and Black	
Violet/White	
Black/Yellow	

Metal Halide

For 250 – 1500W Metal Halide HID Lamps

72149 – GEM400MLTAA4-5

Metal Halide

1 – 400W MH M59 or H33 Quad (120/208/240/277V) A1 C&C

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	M59, H33
Voltage	120/208/240/277
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil filled
Capacitance	24 Mfd
Voltage (MIN)	400
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	
Sound Rating	
Additional Info	

Electrical characteristics

Supply Current Frequency	60 Hz
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Order information

Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	3

Specifications by lamp and line voltage

Lamp	Specifications by line voltage			
M59, H33	120	208	240	277
400W Quartz Metal Halide	446	446	446	446
Nominal Current	3.80 A	2.20 A	1.90 A	1.70 A
Ballast Factor	1	1	1	1
Ballast Efficiency Factor	0.93	0.93	0.93	0.93
Max Input Current	3.80 A	2.20 A	1.90 A	1.70 A
Starting Current	3.17 A	1.84 A	1.60 A	1.39 A
Open Circuit Voltage	289V	289V	289V	289V
Drop Out Voltage	96V	166V	192V	222V
Power Factor (≥)%	90	90	90	90
Min. Starting Temp (*F/°C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30
Fuse Rating	10	8	5	5
UL Bench Top Rise	C	C	C	C

Safety and performance

cUL Listed  UL Listed

86803 – GEM40048TAC4-5

Metal Halide

1 – 400W MH M59 or H33 480

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	M59, H33
Voltage	480
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil filled
Capacitance	24 Mfd
Voltage (MIN)	400
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	
Sound Rating	
Additional Info	

Electrical characteristics

Supply Current Frequency	60 Hz
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Order information

Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	3

Specifications by lamp and line voltage

Lamp	Specifications by line voltage		Lamp	Specifications by line voltage	
M59	480		H33	480	
400W Quartz Metal Halide	432		400W Mercury	458	
Nominal Current	0.90 A		Nominal Current	1.00 A	
Ballast Factor	1		Ballast Factor	1	
Ballast Efficiency Factor	0.93		Ballast Efficiency Factor	0.87	
Max Input Current	0.90 A		Max Input Current	1.00 A	
Starting Current	0.60 A		Starting Current	0.60 A	
Open Circuit Voltage	297V		Open Circuit Voltage	300V	
Drop Out Voltage	384V		Drop Out Voltage	384V	
Power Factor (≥)%	90		Power Factor (≥)%	90	
Min. Starting Temp (*F/°C)	-22 / -30		Min. Starting Temp (*F/°C)	-22 / -30	
Fuse Rating	5		Fuse Rating	5	
UL Bench Top Rise	A		UL Bench Top Rise	E	

Safety and performance

cUL Listed  UL Listed

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement
- Quad ballast (120, 208, 240, 277)

Dimensions

Wiring diagram HID H21 – see example on page 180

Case dimensions – Ref Drawing PC2 – see page 185

Length (L)	5.25 in (133.35 mm)
Width (W)	1.25 in (31.75 mm)

Mounting dimensions

Mount Length (M)	4.6 in (116.84 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	2.0
B	4.0
Weight	11.90 lbs
Exit Type	Side
Nominal Length	3.7 in (95.25 mm)
Frame Size (H x L)	4.25 in x 4.75 in

Lead lengths

Orange	
Violet and Black	
Violet/White	
Black/Yellow	

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement

Dimensions

Wiring diagram HID W-(J)-86650-86693-86803 – see example on page 182

Case dimensions – Ref Drawing PC2 – see page 185

Length (L)	5.25 in (133.35 mm)
Width (W)	1.25 in (31.75 mm)

Mounting dimensions

Mount Length (M)	4.6 in (116.84 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	2.0
B	4.0
Weight	12.50 lbs
Exit Type	Side
Nominal Length	3.7 in (95.25 mm)
Frame Size (H x L)	4.25 in x 4.75 in

Lead lengths

Orange	
Violet and Black	
Violet/White	
Black/Yellow	

Metal Halide

For 250 – 1500W Metal Halide HID Lamps

86650 – GEM100048TAC5-5

Metal Halide

1 – 1000W MH M47 or H36 480

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	M47, H36
Voltage	480
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil filled
Capacitance	24 Mfd
Voltage (MIN)	480
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	
Sound Rating	
Additional Info	

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	2

Specifications by lamp and line voltage		
Lamp	Specifications by line voltage	
M47, H36	480	
1000W Quartz Metal Halide	System Wattage (W)	1,052
	Nominal Current	2.20 A
1000W Mercury	Ballast Factor	1
	Ballast Efficiency Factor	0.95
	Max Input Current	2.20 A
	Starting Current	1.83 A
	Open Circuit Voltage	430V
	Drop Out Voltage	384V
	Power Factor (≥)%	90
	Min. Starting Temp (°F/°C)	-22 / -30
	Fuse Rating	10
	UL Bench Top Rise	E

Safety and performance  UL Listed

87213 – GEM1000ML5AA5-5

Metal Halide

1 – 1000W MH M47 or H36 5-Tap (120/208/240/277/480V)

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	M47, H36
Voltage	120/208/240/277/480
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil filled
Capacitance	24 Mfd
Voltage (MIN)	480
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	
Sound Rating	
Additional Info	

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	2

Specifications by lamp and line voltage						
Lamp	Specifications by line voltage					
M47, H36	120	208	240	277	480	
1000W Quartz Metal Halide	System Wattage (W)	1,103	1,103	1,103	1,103	1,103
	Nominal Current	9.30 A	5.40 A	4.70 A	4.10 A	2.40 A
1000W Mercury	Ballast Factor	1	1	1	1	1
	Ballast Efficiency Factor	0.91	0.91	0.91	0.91	0.91
	Max Input Current	9.30 A	5.40 A	4.70 A	4.10 A	2.40 A
	Starting Current	6.34 A	3.71 A	3.20 A	2.79 A	1.65 A
	Open Circuit Voltage	445V	445V	445V	445V	445V
	Drop Out Voltage	96V	166V	192V	222V	384V
	Power Factor (≥)%	90	90	90	90	90
	Min. Starting Temp (°F/°C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30	-22 / -30
	Fuse Rating	20	15	10	10	10
	UL Bench Top Rise	E	C	C	C	D

Safety and performance  UL Listed

- Magnetic ballast construction ideal for a wide variety of lighting applications.
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity.
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement

Dimensions	
Wiring diagram HID W-(J)-86650-86693-86803 – see example on page 182	
Case dimensions – Ref Drawing PC3 – see page 185	
Length (L)	7.75 in (196.85 mm)
Width (W)	2.75 in (69.85 mm)
Mounting dimensions	
Mount Length (M)	6.1 in (154.94 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	3.0
B	5.0
Weight	21.00 lbs
Exit Type	Side
Nominal Length	3.7 in (95.25 mm)
Frame Size (H x L)	4.25 in x 6.00 in

Electrical characteristics	
Supply Current Frequency	60 Hz

Specifications by lamp and line voltage		
Lamp	Specifications by line voltage	
M47, H36	480	
1000W Quartz Metal Halide	System Wattage (W)	1,067
	Nominal Current	9.00 A
1000W Mercury	Ballast Factor	1
	Ballast Efficiency Factor	0.94
	Max Input Current	9.00 A
	Starting Current	7.44 A
	Open Circuit Voltage	421V
	Drop Out Voltage	96V
	Power Factor (≥)%	90
	Min. Starting Temp (°F/°C)	-22 / -30
	Fuse Rating	20
	UL Bench Top Rise	B

Safety and performance  UL Listed

- Magnetic ballast construction ideal for a wide variety of lighting applications

- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement
- 5-tap ballast (120, 208, 240, 277, or 480 Volt) featuring a 480-Volt tap

Dimensions	
Wiring diagram HID W-(K)-87212-87213 – see example on page 183	
Case dimensions – Ref Drawing PC3 – see page 185	
Length (L)	7.75 in (196.85 mm)
Width (W)	2.75 in (69.85 mm)
Mounting dimensions	
Mount Length (M)	6.1 in (154.94 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	3.0
B	5.0
Weight	21.00 lbs
Exit Type	Side
Nominal Length	3.7 in (95.25 mm)
Frame Size (H x L)	4.25 in x 6.00 in
Lead lengths	
Orange	
Violet and Black	
Violet/White	
Black/Yellow	

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	2

Safety and performance  UL Listed

Metal Halide

For 250 – 1500W Metal Halide HID Lamps

86655 – GEM1000MLTAA5-5

Metal Halide

1 – 1000W MH M47 or H36 Quad (120/208/240/277V)

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	M47, H36
Voltage	120/208/240/277
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil filled
Capacitance	24 Mfd
Voltage (MIN)	480
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	
Sound Rating	
Additional Info	

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	2

Specifications by lamp and line voltage				
Lamp	Specifications by line voltage			
M47, H36	120	208	240	277
1000W Quartz Metal Halide	System Wattage (W)	1,067	1,067	1,067
	Nominal Current	9.00 A	5.00 A	4.50 A
1000W Mercury	Ballast Factor	1	1	1
	Ballast Efficiency Factor	0.94	0.94	0.94
	Max Input Current	9.00 A	5.00 A	4.50 A
	Starting Current	7.44 A	4.35 A	3.79 A
	Open Circuit Voltage	421V	421V	421V
	Drop Out Voltage	96V	166V	192V
	Power Factor (≥)%	90	90	90
	Min. Starting Temp (°F/°C)	-22 / -30	-22 / -30	-22 / -30
	Fuse Rating	20	15	10
	UL Bench Top Rise	B	B	B

Safety and performance  UL Listed

86693 – GEM150048TAC5M5-5

Metal Halide

1 – 1500W MH M48 480

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	M48
Voltage	480
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil filled
Capacitance	32 Mfd
Voltage (MIN)	525
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	
Sound Rating	
Additional Info	

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	2

Specifications by lamp and line voltage	
Lamp	Specifications by line voltage
M48	480
1500W Quartz Metal Halide	System Wattage (W)
	Nominal Current
	Ballast Factor
	Ballast Efficiency Factor
	Max Input Current
	Starting Current
	Open Circuit Voltage
	Drop Out Voltage
	Power Factor (≥)%
	Min. Starting Temp (°F/°C)
	Fuse Rating
	UL Bench Top Rise

Safety and performance  UL Listed

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement
- Quad ballast (120, 208, 240, 277)

Dimensions	
Wiring diagram HID W-(C)-86655-86698-86741 – see example on page 181	
Case dimensions – Ref Drawing PC3 – see page 185	
Length (L)	7.75 in (196.85 mm)
Width (W)	2.75 in (69.85 mm)
Mounting dimensions	
Mount Length (M)	6.1 in (154.94 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	3.0
B	5.0
Weight	21.00 lbs
Exit Type	Side
Nominal Length	3.7 in (95.25 mm)
Frame Size (H x L)	4.25 in x 6.00 in

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	2

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement

Dimensions	
Wiring diagram HID W-(J)-86650-86693-86803 – see example on page 182	
Case dimensions – Ref Drawing PC3 – see page 185	
Length (L)	7.75 in (196.85 mm)
Width (W)	2.75 in (69.85 mm)
Mounting dimensions	
Mount Length (M)	6.1 in (154.94 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	4.0
B	6.0
Weight	30.00 lbs
Exit Type	Side
Nominal Length	5.2 in (133.35 mm)
Frame Size (H x L)	4.25 in x 6.00 in

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	2

Specifications by lamp and line voltage	
Lamp	Specifications by line voltage
M48	480
1500W Quartz Metal Halide	System Wattage (W)
	Nominal Current
	Ballast Factor
	Ballast Efficiency Factor
	Max Input Current
	Starting Current
	Open Circuit Voltage
	Drop Out Voltage
	Power Factor (≥)%
	Min. Starting Temp (°F/°C)
	Fuse Rating
	UL Bench Top Rise

Safety and performance  UL Listed

Metal Halide

For 250 – 1500W Metal Halide HID Lamps

86698 – GEM1500MLTAC5-5

Metal Halide

1 – 1500W MH M48 Quad (120/208/240/277V)

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	M48
Voltage	240/277
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil filled
Capacitance	32 Mfd
Voltage (MIN)	525
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	
Sound Rating	
Additional Info	

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	2

Specifications by lamp and line voltage					
Lamp	Specifications by line voltage				
M48	120	208	240	277	
1500W Quartz Metal Halide					
System Wattage (W)	1,602	1,602	1,602	1,602	
Nominal Current	13.70 A	7.70 A	6.80 A	6.00 A	
Ballast Factor	1	1	1	1	
Ballast Efficiency Factor	0.94	0.94	0.94	0.94	
Max Input Current	13.70 A	7.70 A	6.80 A	6.00 A	
Starting Current	12.95 A	7.46 A	6.52 A	5.75 A	
Open Circuit Voltage	440V	440V	440V	440V	
Drop Out Voltage	96V	166V	192V	222V	
Power Factor (>=)%	90	90	90	90	
Min. Starting Temp (°F/°C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30	
Fuse Rating	40	25	20	20	
UL Bench Top Rise	E	A	A	A	

Safety and performance  

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement
- Quad ballast (120, 208, 240, 277)

Dimensions	
Wiring diagram HID W-(C)-86655-86698-86741 – see example on page 181	
Case dimensions – Ref Drawing PC3 – see page 185	
Length (L)	7.75 in (196.85 mm)
Width (W)	2.75 in (69.85 mm)
Mounting dimensions	
Mount Length (M)	6.1 in (154.94 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	4.0
B	6.0
Weight	30.00 lbs
Exit Type	Side
Nominal Length	5.2 in (133.35 mm)
Frame Size (H x L)	4.25 in x 6.00 in

Pulse Start

For 175 – 1000W Pulse Start Metal Halide HID Lamps

86885 – GEP175MLTAC3-5

Pulse Start

1 – 175W PS M137 or M152 Quad (120/208/240/277V)

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	M153, M137
Voltage	120/208/240/277
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil filled
Capacitance	10 Mfd
Voltage (MIN)	400
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	MH350-1A
Sound Rating	
Additional Info	

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	6

Specifications by lamp and line voltage											
Lamp	Specifications by line voltage					Lamp	Specifications by line voltage				
M153	120	208	240	277		M137	120	208	240	277	
250W Quartz Metal Halide						175W Quartz Metal Halide					
System Wattage (W)	204	204	204	204		System Wattage (W)	204	204	204	204	
Nominal Current	1.70 A	1.00 A	0.90 A	0.80 A		Nominal Current	1.70 A	1.00 A	0.90 A	0.80 A	
Ballast Factor	1	1	1	1		Ballast Factor	1	1	1	1	
Ballast Efficiency Factor	1.23	1.23	1.23	1.23		Ballast Efficiency Factor	0.86	0.86	0.86	0.86	
Max Input Current	1.70 A	1.00 A	0.90 A	0.80 A		Max Input Current	1.70 A	1.00 A	0.90 A	0.80 A	
Starting Current	0.76 A	0.36 A	0.38 A	0.33 A		Starting Current	0.76 A	0.36 A	0.38 A	0.33 A	
Open Circuit Voltage	281V	281V	281V	281V		Open Circuit Voltage	281V	281V	281V	281V	
Drop Out Voltage	96V	166V	192V	222V		Drop Out Voltage	96V	166V	192V	222V	
Power Factor (>=)%	90	90	90	90		Power factor (>=)%	90	90	90	90	
Min. Starting Temp (°F/°C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30		Min. starting temperature	-22 / -30	-22 / -30	-22 / -30	-22 / -30	
Fuse Rating	5	3	3	2		Fuse rating	5	3	3	2	
UL Bench Top Rise	C	D	B	B		UL bench top rise	C	D	B	B	

Safety and performance  

86876 – GEP17548TAC3-5

Pulse Start

1 – 175W PS M137 or M152 480

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	M152, M137
Voltage	120/480
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil filled
Capacitance	10 Mfd
Voltage (MIN)	400
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	MH350-1A
Sound Rating	
Additional Info	

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	6

Specifications by lamp and line voltage			
Lamp	Specifications by line voltage		
M152, M137	120	480	
175W Quartz Metal Halide			
System Wattage (W)	210	214	
Nominal Current	1.85 A	0.50 A	
Ballast Factor	1	1	
Ballast Efficiency Factor	0.83	0.82	
Max Input Current		0.50 A	
Starting Current	0.55 A	0.14 A	
Open Circuit Voltage	315V	273V	
Drop Out Voltage	96V		
Power Factor (>=)%	90	90	
Min. Starting Temp (°F/°C)	384V	-22 / -30	
Fuse Rating	2	2	
UL Bench Top Rise	C	C	

Safety and performance  

See page 195 for warranty information.


- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement
- Quad ballast (120, 208, 240, 277)

Dimensions	
Wiring diagram HID W-(A)-46934-86885-86935 – see example on page 181	
Case dimensions – Ref Drawing PC1 – see page 185	
Length (L)	5.25 in (133.35 mm)
Width (W)	1.25 in (31.75 mm)
Mounting dimensions	
Mount Length (M)	4.6 in (116.84 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	2.0
B	4.0
Weight	7.50 lbs
Exit Type	Side
Nominal Length	3.2 in (82.55 mm)
Frame Size (H x L)	2.813 in x 3.939 in

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	6

Specifications by lamp and line voltage											
Lamp	Specifications by line voltage					Lamp	Specifications by line voltage				
M153	120	208	240	277		M137	120	208	240	277	
250W Quartz Metal Halide						175W Quartz Metal Halide					
System Wattage (W)	204	204	204	204		System Wattage (W)	204	204	204	204	
Nominal Current	1.70 A	1.00 A	0.90 A	0.80 A		Nominal Current	1.70 A	1.00 A	0.90 A	0.80 A	
Ballast Factor	1	1	1	1		Ballast Factor	1	1	1	1	
Ballast Efficiency Factor	1.23	1.23	1.23	1.23		Ballast Efficiency Factor	0.86	0.86	0.86	0.86	
Max Input Current	1.70 A	1.00 A	0.90 A	0.80 A		Max Input Current	1.70 A	1.00 A	0.90 A	0.80 A	
Starting Current	0.76 A	0.36 A	0.38 A	0.33 A		Starting Current	0.76 A	0.36 A	0.38 A	0.33 A	
Open Circuit Voltage	281V	281V	281V	281V		Open Circuit Voltage	281V	281V	281V	281V	
Drop Out Voltage	96V	166V	192V	222V		Drop Out Voltage	96V	166V	192V	222V	
Power Factor (>=)%	90	90	90	90		Power factor (>=)%	90	90	90	90	
Min. Starting Temp (°F/°C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30		Min. starting temperature	-22 / -30	-22 / -30	-22 / -30	-22 / -30	
Fuse Rating	5	3	3	2		Fuse rating	5	3	3	2	
UL Bench Top Rise	C	D	B	B		UL bench top rise	C	D	B	B	

Safety and performance  

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement

Dimensions	
Wiring diagram HID W-(E)-87087-86711-86876 – see example on page 182	
Case dimensions – Ref Drawing PC1 – see page 185	
Length (L)	5.25 in (133.35 mm)
Width (W)	1.25 in (31.75 mm)
Mounting dimensions	
Mount Length (M)	4.6 in (116.84 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	2.0
B	4.0
Weight	7.00 lbs
Exit Type	Side
Nominal Length	3.2 in (82.55 mm)
Frame Size (H x L)	2.813 in x 3.939 in

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	6

Specifications by lamp and line voltage			
Lamp	Specifications by line voltage		
M152, M137	120	480	
175W Quartz Metal Halide			
System Wattage (W)	210	214	
Nominal Current	1.85 A	0.50 A	
Ballast Factor	1	1	
Ballast Efficiency Factor	0.83	0.82	
Max Input Current		0.50 A	
Starting Current	0.55 A	0.14 A	
Open Circuit Voltage	315V	273V	
Drop Out Voltage	96V		
Power Factor (>=)%	90	90	
Min. Starting Temp (°F/°C)	384V	-22 / -30	
Fuse Rating	2	2	
UL Bench Top Rise	C	C	

Safety and performance  

See page 195 for warranty information.

Pulse Start

For 175 – 1000W Pulse Start Metal Halide HID Lamps

86935 – GEP250MLTAC4-5

Pulse Start

1 – 250W PS M138 or M153 Quad (120/208/240/277V)

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	M153, M138
Voltage	120/208/240/277
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil filled
Capacitance	15 Mfd
Voltage (MIN)	400
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	MH350-1A
Sound Rating	
Additional Info	

Electrical characteristics

Supply Current Frequency	60 Hz
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Order information

Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	3

Specifications by lamp and line voltage

Lamp	Specifications by line voltage			
M153, M138	120	208	240	277
250W Quartz Metal Halide				
System Wattage (W)	284	284	284	284
Nominal Current	2.50 A	1.40 A	1.30 A	1.10 A
Ballast Factor	1	1	1	1
Ballast Efficiency Factor	0.88	0.88	0.88	0.88
Max Input Current	2.50 A	1.40 A	1.30 A	1.10 A
Starting Current	1.78 A	1.02 A	0.89 A	0.77 A
Open Circuit Voltage	255V	255V	255V	255V
Drop Out Voltage	96V	166V	192V	222V
Power Factor (≥)%	90	90	90	90
Min. Starting Temp (°F/°C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30
Fuse Rating	8	5	5	3
UL Bench Top Rise	A	A	A	B

Safety and performance

cUL Listed  UL Listed

86926 – GEP25048TAC4-5

Pulse Start

1 – 250W PS M138 or M153 480

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	M153, M138
Voltage	480
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil filled
Capacitance	15 Mfd
Voltage (MIN)	400
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	MH350-1A
Sound Rating	
Additional Info	

Electrical characteristics

Supply Current Frequency	60 Hz
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Order information

Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	3

Specifications by lamp and line voltage

Lamp	Specifications by line voltage		Lamp	Specifications by line voltage	
M153	480	M138	480		
250W Quartz Metal Halide					
System Wattage (W)	290		290		
Nominal Current	0.60 A		0.60 A		
Ballast Factor	1		1		
Ballast Efficiency Factor	0.86		0.87		
Max Input Current	0.60 A		0.80 A		
Starting Current	0.48 A		0.50 A		
Open Circuit Voltage	254V		268V		
Drop Out Voltage	384V		384V		
Power Factor (≥)%	90		90		
Min. Starting Temp (°F/°C)	-22 / -30		-22 / -30		
Fuse Rating	2		3		
UL Bench Top Rise	C		C		

Safety and performance

cUL Listed  UL Listed

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement
- Quad ballast (120, 208, 240, 277)

Dimensions	
Wiring diagram HID W-(A)-46934-86885-86935 – see example on page 181	
Case dimensions – Ref Drawing PC2 – see page 185	
Length (L)	5.25 in (133.35 mm)
Width (W)	1.25 in (31.75 mm)
Mounting dimensions	
Mount Length (M)	4.6 in (116.84 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	2.0
B	3.0
Weight	9.00 lbs
Exit Type	Side
Nominal Length	3.2 in (82.55 mm)
Frame Size (H x L)	4.25 in x 4.75 in

Supply Current Frequency	60 Hz
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Order information

Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	3

Specifications by lamp and line voltage

Lamp	Specifications by line voltage			
M154, M132	120	208	240	277
320W Quartz Metal Halide				
System Wattage (W)	370	370	370	370
Nominal Current	3.10 A	1.80 A	1.60 A	1.40 A
Ballast Factor	1	1	1	1
Ballast Efficiency Factor	0.86	0.86	0.86	0.86
Max Input Current	3.10 A	1.80 A	1.60 A	1.40 A
Starting Current	1.75 A	1.04 A	0.87 A	0.76 A
Open Circuit Voltage	269V	269V	269V	269V
Drop Out Voltage	96V	166V	192V	222V
Power Factor (≥)%	90	90	90	90
Min. Starting Temp (°F/°C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30
Fuse Rating	8	7	5	5
UL Bench Top Rise	D	B	B	A

Safety and performance

cUL Listed  UL Listed

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement

Dimensions	
Wiring diagram HID W-(E)-86926 – see example on page 182	
Case dimensions – Ref Drawing PC2 – see page 185	
Length (L)	5.25 in (133.35 mm)
Width (W)	1.25 in (31.75 mm)
Mounting dimensions	
Mount Length (M)	4.6 in (116.84 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	2.0
B	3.0
Weight	9.00 lbs
Exit Type	Side
Nominal Length	3.2 in (82.55 mm)
Frame Size (H x L)	4.25 in x 4.75 in

Supply Current Frequency	60 Hz
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Order information

Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	3

Specifications by lamp and line voltage

Lamp	Specifications by line voltage		Lamp	Specifications by line voltage	
M153	480	M138	480		
250W Quartz Metal Halide					
System Wattage (W)	290		290		
Nominal Current	0.60 A		0.60 A		
Ballast Factor	1		1		
Ballast Efficiency Factor	0.86		0.87		
Max Input Current	0.60 A		0.80 A		
Starting Current	0.48 A		0.50 A		
Open Circuit Voltage	254V		268V		
Drop Out Voltage	384V		384V		
Power Factor (≥)%	90		90		
Min. Starting Temp (°F/°C)	-22 / -30		-22 / -30		
Fuse Rating	2		3		
UL Bench Top Rise	C		C		

Safety and performance

cUL Listed  UL Listed

Pulse Start

For 175 – 1000W Pulse Start Metal Halide HID Lamps

86959 – GEP320MLTAC4-5

Pulse Start

1 – 320W PS M132 or 154 Quad (120/208/240/277V)

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	M154, M132
Voltage	120/208/240/277
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil filled
Capacitance	21 Mfd
Voltage (MIN)	345
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	MH350-1A
Sound Rating	
Additional Info	

Electrical characteristics

Supply Current Frequency	60 Hz
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Order information

Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	3

Specifications by lamp and line voltage

Lamp	Specifications by line voltage			
M154, M132	120	208	240	277
320W Quartz Metal Halide				
System Wattage (W)	370	370	370	370
Nominal Current	3.10 A	1.80 A	1.60 A	1.40 A
Ballast Factor	1	1	1	1
Ballast Efficiency Factor	0.86	0.86	0.86	0.86
Max Input Current	3.10 A	1.80 A	1.60 A	1.40 A
Starting Current	1.75 A	1.04 A	0.87 A	0.76 A
Open Circuit Voltage	269V	269V	269V	269V
Drop Out Voltage	96V	166V	192V	222V
Power Factor (≥)%	90	90	90	90
Min. Starting Temp (°F/°C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30
Fuse Rating	8	7	5	5
UL Bench Top Rise	D	B	B	A

Safety and performance

cUL Listed  UL Listed

86952 – GEP32048TAC4M-5

Pulse Start

1 – 320W PS M132 or M154 480

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	M154, M132
Voltage	480
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil filled
Capacitance	21 Mfd
Voltage (MIN)	345
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	MH350-1A
Sound Rating	
Additional Info	

Electrical characteristics

Supply Current Frequency	60 Hz
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Order information

Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	3

Specifications by lamp and line voltage

Lamp	Specifications by line voltage	
M154, M132	480	
320W Quartz Metal Halide		
System Wattage (W)	369	
Nominal Current	0.80 A	
Ballast Factor	1	
Ballast Efficiency Factor	0.87	
Max Input Current	0.80 A	
Starting Current	0.50 A	
Open Circuit Voltage	268V	
Drop Out Voltage	384V	
Power Factor (≥)%	90	
Min. Starting Temp (°F/°C)	-22 / -30	
Fuse Rating	3	
UL Bench Top Rise	C	

Safety and performance

cUL Listed  UL Listed

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement
- Quad ballast (120, 208, 240, 277)

Dimensions	
Wiring diagram HID W-(A)-86959-86984-87008 – see example on page 181	
Case dimensions – Ref Drawing PC2 – see page 185	
Length (L)	5.25 in (133.35 mm)
Width (W)	1.25 in (31.75 mm)
Mounting dimensions	
Mount Length (M)	4.6 in (116.84 mm)
Mount Width (X or F)	0.25 in (6.35 mm)
A	2.0
B	4.0
Weight	11.00 lbs
Exit Type	Side
Nominal Length	3.7 in (95.25 mm)
Frame Size (H x L)	4.25 in x 4.75 in

Supply Current Frequency	60 Hz
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Order information

Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	3

Specifications by lamp and line voltage

Lamp	Specifications by line voltage			
M154, M132	120	208	240	277
320W Quartz Metal Halide				
System Wattage (W)	370	370	370	370
Nominal Current	3.10 A	1.80 A	1.60 A	1.40 A
Ballast Factor	1	1	1	

Pulse Start

For 175 – 1000W Pulse Start Metal Halide HID Lamps

86968 – GEP320TRIAC4-5

Pulse Start

1 – 320W PS M132 or M154 TRI-Voltage 120 277 347

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	M154, M132
Voltage	120/277/347
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil Filled
Capacitance	21 Mfd
Voltage (MIN)	400
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	MH350-1A
Sound Rating	
Additional Info	

Electrical characteristics

Supply Current Frequency	60 Hz
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Order information

Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	3

Specifications by lamp and line voltage

Lamp	Specifications by line voltage			
M154, M132		120	277	347
	System Wattage (W)	400	400	400
	Nominal Current	3.00 A	1.30 A	1.10 A
	Ballast Factor	1	1	1
	Ballast Efficiency Factor	0.88	0.88	0.88
	Max Input Current	3.00 A	1.30 A	1.10 A
	Starting Current	1.89 A	0.83 A	0.66 A
	Open Circuit Voltage	281V	281V	281V
	Drop Out Voltage	96V	222V	150V
	Power Factor (≥)%	90	90	90
	Min. Starting Temp (°F/°C)	-22 / -30	-22 / -30	-22 / -30
	Fuse Rating	8	4	3
	UL Bench Top Rise	C	C	C

Safety and performance

cUL Listed  UL Listed

86984 – GEP350MLTAC4-5

Pulse Start

1 – 350W PS M131 Quad (120/208/240/277V)

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	M131
Voltage	120/208/240/277
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil filled
Capacitance	21.5 Mfd
Voltage (MIN)	345
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	MH350-1A
Sound Rating	
Additional Info	

Electrical characteristics

Supply Current Frequency	60 Hz
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Order information

Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	3

Specifications by lamp and line voltage

Lamp	Specifications by line voltage				
M131 350W Quartz Metal Halide		120	208	240	277
	System Wattage (W)	396	396	396	396
	Nominal Current	3.40 A	1.90 A	1.70 A	1.40 A
	Ballast Factor	1	1	1	1
	Ballast Efficiency Factor	0.88	0.88	0.88	0.88
	Max Input Current	3.40 A	1.90 A	1.70 A	1.40 A
	Starting Current	2.31 A	1.31 A	1.12 A	0.99 A
	Open Circuit Voltage	262V	262V	262V	262V
	Drop Out Voltage	96V	166V	192V	222V
	Power Factor (≥)%	90	90	90	90
	Min. Starting Temp (°F/°C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30
	Fuse Rating	10	7	5	5
	UL Bench Top Rise	D	D	D	D

Safety and performance

cUL Listed  UL Listed

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement

Dimensions

Wiring diagram HID W-(L)-86968 – see example on page 183

Case dimensions – Ref Drawing PC2 – see page 185

Length (L)	5.3 in (134.62 mm)
Width (W)	1.3 in (33.02 mm)
Mounting dimensions	
Mount Length (M)	4.60 in (116.84 mm)
Mount Slots (MS)	0.3 in (7.62 mm)
A	
B	
Weight	12.00 lbs
Exit Type	Side
Nominal Length	3.7 in (95.25 mm)
Frame Size (H x L)	4.25 in (4.75 mm)

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement
- Quad ballast (120, 208, 240, 277)

Dimensions

Wiring diagram HID W-(A)-86959-86984-87008 – see example on page 181

Case dimensions – Ref Drawing PC2 – see page 185

Length (L)	5.25 in (133.35 mm)
Width (W)	1.25 in (31.75 mm)
Mounting dimensions	
Mount Length (M)	4.6 in (116.84 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	2.0
B	4.0
Weight	12.00 lbs
Exit Type	Side
Nominal Length	3.7 in (95.25 mm)
Frame Size (H x L)	4.25 in x 4.75 in

Pulse Start

For 175 – 1000W Pulse Start Metal Halide HID Lamps

86999 – GEP40048TAC4-5

Pulse Start

1 – 400W PS M135 or M155 480

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	M155, M135
Voltage	480
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil filled
Capacitance	24 Mfd
Voltage (MIN)	400
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	MH350-1A
Sound Rating	
Additional Info	

Electrical characteristics

Supply Current Frequency	60 Hz
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Order information

Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	3

Specifications by lamp and line voltage

Lamp	Specifications by line voltage	
M155, M135 400W Quartz Metal Halide		480
	System Wattage (W)	465
	Nominal Current	1.00 A
	Ballast Factor	1
	Ballast Efficiency Factor	0.86
	Max Input Current	1.00 A
	Starting Current	0.80 A
	Open Circuit Voltage	275V
	Drop Out Voltage	384V
	Power Factor (≥)%	90
	Min. Starting Temp (°F/°C)	-22 / -30
	Fuse Rating	3
	UL Bench Top Rise	D

Safety and performance

cUL Listed  UL Listed

87008 – GEP400MLTAC4-5

Pulse Start

1 – 400W PS M135 or M155 Quad (120/208/240/277V)

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	M155, M135
Voltage	120/208/240/277
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil filled
Capacitance	24 Mfd
Voltage (MIN)	400
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	MH350-1A
Sound Rating	
Additional Info	

Electrical characteristics

Supply Current Frequency	60 Hz
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Order information

Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	3

Specifications by lamp and line voltage

Lamp	Specifications by line voltage				
M155, M135 400W Quartz Metal Halide		120	208	240	277
	System Wattage (W)	443	443	443	443
	Nominal Current	3.90 A	2.20 A	2.00 A	1.70 A
	Ballast Factor	1	1	1	1
	Ballast Efficiency Factor	0.90	0.90	0.90	0.90
	Max Input Current	3.90 A	2.20 A	2.00 A	1.70 A
	Starting Current	3.16 A	1.85 A	1.60 A	1.39 A
	Open Circuit Voltage	259V	259V	259V	259V
	Drop Out Voltage	96V	166V	192V	222V
	Power Factor (≥)%	90	90	90	90
	Min. Starting Temp (°F/°C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30
	Fuse Rating	10	7	5	5
	UL Bench Top Rise	B	C	D	C

Safety and performance

cUL Listed  UL Listed

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement

Dimensions

Wiring diagram HID W-(D)-86952-86999 – see example on page 181

Case dimensions – Ref Drawing PC2 – see page 185

Length (L)	5.25 in (133.35 mm)
Width (W)	1.25 in (31.75 mm)
Mounting dimensions	
Mount Length (M)	4.6 in (116.84 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	2.0
B	4.0
Weight	12.00 lbs
Exit Type	Side
Nominal Length	4.6 in (119.12 mm)
Frame Size (H x L)	4.25 in x 4.75 in

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement
- Quad ballast (120, 208, 240, 277)

Dimensions

Wiring diagram HID W-(A)-86959-86984-87008 – see example on page 181

Case dimensions – Ref Drawing PC2 – see page 185

Length (L)	5.25 in (133.35 mm)
Width (W)	1.25 in (31.75 mm)
Mounting dimensions	
Mount Length (M)	4.6 in (116.84 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	2.0
B	3.8
Weight	12.00 lbs
Exit Type	Side
Nominal Length	4.6 in (119.12 mm)
Frame Size (H x L)	4.25 in x 4.75 in

Pulse Start

For 175 – 1000W Pulse Start Metal Halide HID Lamps

46936 – GEP75048TAC5-5

Pulse Start


1 – 750W PS M149 480

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	M149
Voltage	480
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil filled
Capacitance	24 Mfd
Voltage (MIN)	480
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	MH750-1A
Sound Rating	
Additional Info	

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	2

Specifications by lamp and line voltage		
Lamp	Specifications by line voltage	
M149		480
750W Quartz Metal Halide	System Wattage (W)	809
	Nominal Current	1.80 A
	Ballast Factor	1
	Ballast Efficiency Factor	0.93
	Max Input Current	1.80 A
	Starting Current	1.04 A
	Open Circuit Voltage	351V
	Drop Out Voltage	384V
	Power Factor (≥)%	90
	Min. Starting Temp (°F/°C)	-22 / -30
	Fuse Rating	6
	UL Bench Top Rise	E

Safety and performance  

46934 – GEP750MLTAC5-5

Pulse Start

1 – 750W PS M149 Quad (120/208/240/277V)

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	M149
Voltage	120/208/240/277
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil filled
Capacitance	28 Mfd
Voltage (MIN)	400
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	MH750-1A
Sound Rating	
Additional Info	

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	2

Specifications by lamp and line voltage					
Lamp	Specifications by line voltage				
M149	120	208	240	277	
750W Quartz Metal Halide	System Wattage (W)	802	802	802	802
	Nominal Current	4.10 A	2.40 A	2.10 A	1.80 A
	Ballast Factor	1	1	1	1
	Ballast Efficiency Factor	0.94	0.94	0.94	0.94
	Max Input Current	4.10 A	2.40 A	2.10 A	1.80 A
	Starting Current	3.98 A	2.32 A	2.03 A	1.76 A
	Open Circuit Voltage	351V	351V	351V	351V
	Drop Out Voltage	96V	166V	192V	222V
	Power Factor (≥)%	90	90	90	90
	Min. Starting Temp (°F/°C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30
	Fuse Rating	15	8	8	8
	UL Bench Top Rise	B	B	B	B

Safety and performance  

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement

Dimensions	
Wiring diagram HID W-(D)-87048-87198-49636 – see example on page 181	
Case dimensions – Ref Drawing PC3 – see page 185	
Length (L)	7.75 in (196.85 mm)
Width (W)	2.75 in (69.85 mm)
Mounting dimensions	
Mount Length (M)	6.1 in (154.94 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	3.0
B	5.0
Weight	21.00 lbs
Exit Type	Side
Nominal Length	4.2 in (107.95 mm)
Frame Size (H x L)	4.25 in x 6.00 in

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement
- Quad ballast (120, 208, 240, 277)

Dimensions	
Wiring diagram HID W-(A)-46934-86885-86935 – see example on page 181	
Case dimensions – Ref Drawing PC3 – see page 185	
Length (L)	7.75 in (196.85 mm)
Width (W)	2.75 in (69.85 mm)
Mounting dimensions	
Mount Length (M)	6.1 in (154.94 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	3.0
B	5.0
Weight	22.00 lbs
Exit Type	Side
Nominal Length	4.2 in (107.95 mm)
Frame Size (H x L)	4.25 in x 6.00 in

Pulse Start

For 175 – 1000W Pulse Start Metal Halide HID Lamps

72281 – GEP1000MLTAC5-5

Pulse Start

1 – 1000W PS M141 Quad (120/208/240/277V)

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	M141
Voltage	120/208/240/277
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil filled
Capacitance	24 Mfd
Voltage (MIN)	480
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	HPS100-4B
Sound Rating	D (37-42 decibels)
Additional Info	

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	2

Specifications by lamp and line voltage					
Lamp	Specifications by line voltage				
M141	120	208	240	277	
	System Wattage (W)	1071	1071	1071	1071
	Nominal Current	8.80 A	5.10 A	4.30 A	4.00 A
	Ballast Factor	1	1	1	1
	Ballast Efficiency Factor	0.93	0.93	0.93	0.93
	Max Input Current	8.80 A	5.10 A	4.30 A	4.00 A
	Starting Current	5.70 A	5.70 A	5.70 A	5.70 A
	Open Circuit Voltage	420V	420V	420V	420V
	Drop Out Voltage	96V	166V	192V	222V
	Power Factor (≥)%	90	90	90	90
	Min. Starting Temp (°F/°C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30
	Fuse Rating	20	15	10	10
	UL Bench Top Rise	D	B	B	B

Safety and performance  

72282 – GEP1000ML5AC5-5

Pulse Start

1 – 1000W PS M141 5-Tap (120/208/240/277/480V)

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	M141
Voltage	120/208/240/277/480
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil filled
Capacitance	24 Mfd
Voltage (MIN)	480
Capacitor Temperature Rating	-30°C (-20°F)
GE Igniter	HPS1000-4B
Sound Rating	D (37-42 decibels)
Additional Info	

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	2

Specifications by lamp and line voltage					
Lamp	Specifications by line voltage				
M141	120	208	240	277	480
	System Wattage (W)	1112	1112	1112	1112
	Nominal Current	9.30 A	5.40 A	4.70 A	4.20 A
	Ballast Factor	1	1	1	1
	Ballast Efficiency Factor	0.90	0.90	0.90	0.90
	Max Input Current	9.30 A	5.40 A	4.70 A	4.20 A
	Starting Current	5.70 A	5.70 A	5.70 A	5.70 A
	Open Circuit Voltage	450V	450V	450V	450V
	Drop Out Voltage	96V	166V	192V	222V
	Power Factor (≥)%	90	90	90	90
	Min. Starting Temp (°F/°C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30
	Fuse Rating	20	15	10	10
	UL Bench Top Rise	D	C	C	D

Safety and performance  

Dimensions	
Wiring diagram HID W-(A)-46934-86935 – see example on page 181	
Case dimensions – Ref Drawing PC3 – see page 185	
Width (W)	7.75 in (196.85 mm)
Length (L)	2.75 in (69.85 mm)
Mounting dimensions	
Mount Length (M)	6.1 in (154.94 mm)
Mount Width (X or F)	6.1 in (154.94 mm)
Mount Slots (MS)	0.25 in (9.52 mm)
A	2.83
B	5.08
Weight	21.00 lbs
Exit Type	Side
Nominal Length	4.25 in (107.95 mm)
Frame Size (H x L)	4.25 in x 6.00 in

Dimensions	
Wiring diagram HID W-(A)-87214-87215-87218 – see example on page 181	
Case dimensions – Ref Drawing PC3 – see page 185	
Width (W)	7.75 in (196.85 mm)
Length (L)	2.75 in (69.85 mm)
Mounting dimensions	
Mount Length (M)	6.1 in (154.94 mm)
Mount Width (X or F)	6.1 in (154.94 mm)
Mount Slots (MS)	0.25 in (9.52 mm)
A	2.83
B	5.20
Weight	21.60 lbs
Exit Type	Side
Nominal Length	4.25 in (107.95 mm)
Frame Size (H x L)	4.25 in x 6.00 in

High Pressure Sodium

For 50 – 150W High Pressure Sodium HID Lamps

87152 – GES50MLTLC3D-5

High Pressure Sodium

1 – 50W HPS S68 Quad (120/208/240/277V)

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	S68
Voltage	120/208/240/277
Line Voltage Regulation (+/-)	5%
Circuit Type	HX-HPF
Insulation Class	180C
Type of Capacitor	Dry film
Capacitance	5 Mfd
Voltage (MIN)	280
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	HPS150-3A
Sound Rating	
Additional Info	

Electrical characteristics

Supply Current Frequency	60 Hz
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Order information

Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	6

Specifications by lamp and line voltage

Lamp	Specifications by line voltage			
S68	120	208	240	277
50W High Pressure Sodium				
System Wattage (W)	69	69	69	69
Nominal Current	0.70 A	0.40 A	0.30 A	0.30 A
Ballast Factor	1	1	1	1
Ballast Efficiency Factor	0.72	0.72	0.72	0.72
Max Input Current	0.93 A	0.54 A	0.46 A	0.40 A
Starting Current	0.74 A	0.43 A	0.37 A	0.32 A
Open Circuit Voltage	122V	122V	122V	122V
Drop Out Voltage	96V	166V	192V	222V
Power Factor (>=)%	90	90	90	90
Min. Starting Temp (*F/*C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30
Fuse Rating	5	3	3	2
UL Bench Top Rise	B	B	B	B

Safety and performance

cUL Listed  UL Listed

86587 – GES70MLTLC3D-5

High Pressure Sodium

1 – 70W HPS S62 Quad (120/208/240/277V)

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	S62
Voltage	120/208/240/277
Line Voltage Regulation (+/-)	5%
Circuit Type	HX-HPF
Insulation Class	180C
Type of Capacitor	Dry film
Capacitance	7 Mfd
Voltage (MIN)	300
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	HPS150-3A
Sound Rating	
Additional Info	

Electrical characteristics

Supply Current Frequency	60 Hz
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Order information

Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	6

Specifications by lamp and line voltage

Lamp	Specifications by line voltage			
S62	120	208	240	277
70W High Pressure Sodium				
System Wattage (W)	91	91	91	91
Nominal Current	0.80 A	0.50 A	0.40 A	0.40 A
Ballast Factor	1	1	1	1
Ballast Efficiency Factor	0.77	0.77	0.77	0.77
Max Input Current	1.34 A	0.78 A	0.67 A	0.59 A
Starting Current	0.78 A	0.46 A	0.39 A	0.35 A
Open Circuit Voltage	118V	118V	118V	118V
Drop Out Voltage	96V	166V	192V	222V
Power Factor (>=)%	90	90	90	90
Min. Starting Temp (*F/*C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30
Fuse Rating	5	3	3	2
UL Bench Top Rise	B	B	B	B

Safety and performance

cUL Listed  UL Listed

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement
- Quad ballast (120, 208, 240, 277)

Dimensions	
Wiring diagram HID W-(H)-87094-87152 – see example on page 182	
Case dimensions – Ref Drawing PC1 – see page 185	
Length (L)	5.25 in (133.35 mm)
Width (W)	1.25 in (31.75 mm)
Mounting dimensions	
Mount Length (M)	4.6 in (116.84 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	1.0
B	3.0
Weight	3.40 lbs
Exit Type	Side
Nominal Length	2.7 in (69.85 mm)
Frame Size (H x L)	2.813 in x 3.939 in

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement
- Quad ballast (120, 208, 240, 277)

Dimensions	
Wiring diagram HID W-(H)-86587-87074 – see example on page 182	
Case dimensions – Ref Drawing PC1 – see page 185	
Length (L)	5.25 in (133.35 mm)
Width (W)	1.25 in (31.75 mm)
Mounting dimensions	
Mount Length (M)	4.6 in (116.84 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	2.0
B	3.0
Weight	5.50 lbs
Exit Type	Side
Nominal Length	2.7 in (69.85 mm)
Frame Size (H x L)	2.813 in x 3.939 in

High Pressure Sodium

For 50 – 150W High Pressure Sodium HID Lamps

86456 – GES7048TLC3D-5

High Pressure Sodium

1 – 70W HPS S62 480V

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	S62
Voltage	480
Line Voltage Regulation (+/-)	5%
Circuit Type	HX-HPF
Insulation Class	180C
Type of Capacitor	Dry film
Capacitance	7 Mfd
Voltage (MIN)	300
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	HPS150-3A 86635
Sound Rating	
Additional Info	

Electrical characteristics

Supply Current Frequency	60 Hz
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Order information

Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	6

Specifications by lamp and line voltage

Lamp	Specifications by line voltage	
S62	480	
70W High Pressure Sodium		
System Wattage (W)	97	
Nominal Current	0.20 A	
Ballast Factor	1	
Ballast Efficiency Factor	0.72	
Max Input Current	0.34 A	
Starting Current	0.34 A	
Open Circuit Voltage	123V	
Drop Out Voltage	384V	
Power Factor (>=)%	90	
Min. Starting Temp (*F/*C)	-22 / -30	
Fuse Rating	2	
UL Bench Top Rise	A	

Safety and performance

cUL Listed  UL Listed

87074 – GES100MLTLC3D-5

High Pressure Sodium

1 – 100W HPS S54 Quad (120/208/240/277V)

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	S54
Voltage	120/208/240/277
Line Voltage Regulation (+/-)	5%
Circuit Type	HX-HPF
Insulation Class	180C
Type of Capacitor	Dry film
Capacitance	10 Mfd
Voltage (MIN)	280
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	HPS150-3A 86635
Sound Rating	
Additional Info	

Electrical characteristics

Supply Current Frequency	60 Hz
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Order information

Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	6

Specifications by lamp and line voltage

Lamp	Specifications by line voltage			
S54	120	208	240	277
100W High Pressure Sodium				
System Wattage (W)	123	123	123	123
Nominal Current	2.20 A	1.30 A	1.10 A	0.90 A
Ballast Factor	1	1	1	1
Ballast Efficiency Factor	1.22	1.22	1.22	1.22
Max Input Current	2.18 A	1.27 A	1.13 A	0.94 A
Starting Current	0.74 A	0.43 A	0.36 A	0.31 A
Open Circuit Voltage	119V	119V	119V	119V
Drop Out Voltage	96V	166V	192V	222V
Power Factor (>=)%	90	90	90	90
Min. Starting Temp (*F/*C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30
Fuse Rating	8	5	5	3
UL Bench Top Rise	B	B	B	B

Safety and performance

cUL Listed  UL Listed

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement

Dimensions	
Wiring diagram HID H6 – see example on page 180	
Case dimensions – Ref Drawing PC1 – see page 185	
Length (L)	5.25 in (133.35 mm)
Width (W)	1.25 in (31.75 mm)
Mounting dimensions	
Mount Length (M)	4.6 in (116.84 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	2.0
B	3.0
Weight	5.80 lbs
Exit Type	Side
Nominal Length	2.7 in (69.85 mm)
Frame Size (H x L)	2.813 in x 3.939 in

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement
- Quad ballast (120, 208, 240, 277)

Dimensions	
Wiring diagram HID W-(H)-86587-87074 – see example on page 182	
Case dimensions – Ref Drawing PC1 – see page 185	
Length (L)	5.25 in (133.35 mm)
Width (W)	1.25 in (31.75 mm)
Mounting dimensions	
Mount Length (M)	4.6 in (116.84 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	2.0
B	4.0
Weight	6.20 lbs
Exit Type	Side
Nominal Length	2.7 in (69.85 mm)
Frame Size (H x L)	2.813 in x 3.939 in

High Pressure Sodium

For 50 – 150W High Pressure Sodium HID Lamps

87068 – GES10048TLC3D-5

High Pressure Sodium

1 – 100W HPS S54 480V

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	S54
Voltage	480
Line Voltage Regulation (+/-)	5%
Circuit Type	HX-HPF
Insulation Class	180C
Type of Capacitor	Dry film
Capacitance	10 Mfd
Voltage (MIN)	280
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	HPS150-3A
Sound Rating	
Additional Info	

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	6

Specifications by lamp and line voltage

Lamp	Specifications by line voltage	
S54		480
100W High Pressure Sodium	System Wattage (W)	135
	Nominal Current	0.30 A
150W High Pressure Sodium	Ballast Factor	1
	Ballast Efficiency Factor	1.11
	Max Input Current	0.54 A
	Starting Current	0.24 A
	Open Circuit Voltage	119V
	Drop Out Voltage	384V
	Power Factor (≥)%	90
	Min. Starting Temp (°F/°C)	-22 / -30
	Fuse Rating	2
	UL Bench Top Rise	C

Safety and performance  UL Listed

87094 – GES150MLTLC3D-5

High Pressure Sodium

1 – 150W HPS S55 Quad (120/208/240/277V)


General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	S55
Voltage	120/208/240/277
Line Voltage Regulation (+/-)	10%
Circuit Type	HX-HPF
Insulation Class	180C
Type of Capacitor	Dry film
Capacitance	14 Mfd
Voltage (MIN)	280
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	HPS150-3A
Sound Rating	
Additional Info	

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	6

Specifications by lamp and line voltage

Lamp	Specifications by line voltage			
S55	120	208	240	277
150W High Pressure Sodium	System Wattage (W)	175	175	175
	Nominal Current	1.60 A	0.90 A	0.80 A
250W Quartz Metal Halide	Ballast Factor	1	1	1
	Ballast Efficiency Factor	1.43	1.43	1.43
	Max Input Current	2.72 A	1.53 A	1.34 A
	Starting Current	1.64 A	0.88 A	0.76 A
	Open Circuit Voltage	115V	115V	115V
	Drop Out Voltage	96V	166V	192V
	Power Factor (≥)%	90	90	90
	Min. Starting Temp (°F/°C)	-22 / -30	-22 / -30	-22 / -30
	Fuse Rating	10	5	5
	UL Bench Top Rise	B	B	B

Safety and performance  UL Listed

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement

Dimensions	
Wiring diagram HID W-(F)-87068-86667 – see example on page 182	
Case dimensions – Ref Drawing PC1 – see page 185	
Length (L)	5.25 in (133.35 mm)
Width (W)	1.25 in (31.75 mm)
Mounting dimensions	
Mount Length (M)	4.6 in (116.84 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	2.0
B	3.0
Weight	6.20 lbs
Exit Type	Side
Nominal Length	2.7 in (68.58 mm)
Frame Size (H x L)	2.813 in x 3.939 in

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement
- Quad ballast (120, 208, 240, 277)

Dimensions	
Wiring diagram HID W-(H)-87094-87152 – see example on page 182	
Case dimensions – Ref Drawing PC1 – see page 185	
Length (L)	5.25 in (133.35 mm)
Width (W)	1.25 in (31.75 mm)
Mounting dimensions	
Mount Length (M)	4.6 in (116.84 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	3.0
B	4.0
Weight	7.60 lbs
Exit Type	Side
Nominal Length	2.7 in (68.58 mm)
Frame Size (H x L)	2.813 in x 3.939 in

High Pressure Sodium

For 50 – 150W High Pressure Sodium HID Lamps

87087 – GES15048TLC3D-5

High Pressure Sodium

1 – 150W HPS S55 480V

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	S55
Voltage	480
Line Voltage Regulation (+/-)	5%
Circuit Type	HX-HPF
Insulation Class	180C
Type of Capacitor	Dry film
Capacitance	10 Mfd
Voltage (MIN)	280
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	HPS150-3A 86635
Sound Rating	
Additional Info	

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	6

Specifications by lamp and line voltage

Lamp	Specifications by line voltage	
S55		480
150W High Pressure Sodium	System Wattage (W)	188
	Nominal Current	0.40 A
250W Quartz Metal Halide	Ballast Factor	1
	Ballast Efficiency Factor	1.33
	Max Input Current	0.73 A
	Starting Current	0.31 A
	Open Circuit Voltage	114V
	Drop Out Voltage	384V
	Power Factor (≥)%	90
	Min. Starting Temp (°F/°C)	-22 / -30
	Fuse Rating	3
	UL Bench Top Rise	F

Safety and performance  UL Listed

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement

Dimensions	
Wiring diagram HID W-(E)-87087-86711-86876 – see example on page 182	
Case dimensions – Ref Drawing PC1 – see page 185	
Length (L)	5.25 in (133.35 mm)
Width (W)	1.25 in (31.75 mm)
Mounting dimensions	
Mount Length (M)	4.6 in (116.84 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	3.0
B	4.0
Weight	8.70 lbs
Exit Type	Side
Nominal Length	2.7 in (68.58 mm)
Frame Size (H x L)	2.813 in x 3.939 in

High Pressure Sodium

For 250 – 1000W High Pressure Sodium HID Lamps

87214 – GES250ML5AC4-5

High Pressure Sodium

1 – 250W HPS S50 5-Top (120/208/240/277/480V)

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	S50
Voltage	120/208/240/277/480
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil filled
Capacitance	35 Mfd
Voltage (MIN)	240
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	HPS400-3A
Sound Rating	
Additional Info	

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	3

Specifications by lamp and line voltage						
Lamp	Specifications by line voltage					
S50 250W High Pressure Sodium	System Wattage (W)	120	208	240	277	480
	Nominal Current	2.50 A	1.50 A	1.30 A	1.10 A	0.60 A
	Ballast Factor	1	1	1	1	1
	Ballast Efficiency Factor	0.86	0.86	0.86	0.86	0.86
	Max Input Current	2.50 A	1.50 A	1.30 A	1.10 A	0.60 A
	Starting Current	1.59 A	0.93 A	0.81 A	0.70 A	0.40 A
	Open Circuit Voltage	186V	186V	186V	186V	186V
	Drop Out Voltage	96V	166V	192V	222V	384V
	Power Factor (≥)%	90	90	90	90	90
	Min. Starting Temp (*F/*C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30	-22 / -30
	Fuse Rating	8	5	4	4	4
	UL Bench Top Rise	C	C	B	B	B

Safety and performance  UL Listed

87121 – GES250MLTAC4-5

High Pressure Sodium

1 – 250W HPS S50 Quad (120/208/240/277V)

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	S50
Voltage	120/208/240/277
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil filled
Capacitance	35 Mfd
Voltage (MIN)	240
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	HPS400-3A
Sound Rating	
Additional Info	

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	3

Specifications by lamp and line voltage					
Lamp	Specifications by line voltage				
S50 250W High Pressure Sodium	System Wattage (W)	120	208	240	277
	Nominal Current	2.60 A	1.50 A	1.30 A	1.10 A
	Ballast Factor	1	1	1	1
	Ballast Efficiency Factor	0.83	0.83	0.83	0.83
	Max Input Current	2.60 A	1.50 A	1.30 A	1.10 A
	Starting Current	1.50 A	0.86 A	0.75 A	0.63 A
	Open Circuit Voltage	186V	186V	186V	186V
	Drop Out Voltage	96V	166V	192V	222V
	Power Factor (≥)%	90	90	90	90
	Min. Starting Temp (*F/*C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30
	Fuse Rating	8	5	4	4
	UL Bench Top Rise	A	A	A	A

Safety and performance  UL Listed

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement
- 5-top ballast (120, 208, 240, 277, or 480 volt) featuring a 480-volt tap

Dimensions	
Wiring diagram HID W-(B)-87214-87215-87218 – see example on page 181	
Case dimensions – Ref Drawing PC2 – see page 185	
Length (L)	5.25 in (133.35 mm)
Width (W)	1.25 in (31.75 mm)
Mounting dimensions	
Mount Length (M)	4.6 in (116.84 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	2.0
B	4.0
Weight	12.00 lbs
Exit Type	Side
Nominal Length	3.7 in (95.25 mm)
Frame Size (H x L)	4.25 in x 4.75 in
Lead lengths	
Orange	
Violet and Black	
Violet/White	
Black/Yellow	

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	3

Specifications by lamp and line voltage						
Lamp	Specifications by line voltage					
S51 400W High Pressure Sodium	System Wattage (W)	120	208	240	277	480
	Nominal Current	4.00 A	2.20 A	2.00 A	1.70 A	1.00 A
	Ballast Factor	1	1	1	1	1
	Ballast Efficiency Factor	0.85	0.85	0.85	0.85	0.85
	Max Input Current	4.00 A	2.20 A	2.00 A	1.70 A	1.00 A
	Starting Current	2.87 A	1.66 A	1.44 A	1.25 A	0.72 A
	Open Circuit Voltage	191V	191V	191V	191V	191V
	Drop Out Voltage	96V	166V	192V	222V	384V
	Power Factor (≥)%	90	90	90	90	90
	Min. Starting Temp (*F/*C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30	-22 / -30
	Fuse Rating	15	8	8	5	5
	UL Bench Top Rise	C	C	C	C	C

High Pressure Sodium

For 250 – 1000W High Pressure Sodium HID Lamps

87215 – GES400ML5AC4-5

High Pressure Sodium

1 – 400W HPS S51 5-Top (120/208/240/277/480V)

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	S51
Voltage	120/208/240/277/480
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil filled
Capacitance	55 Mfd
Voltage (MIN)	240
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	HPS400-3A 86641
Sound Rating	
Additional Info	

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	3

Specifications by lamp and line voltage						
Lamp	Specifications by line voltage					
S51 400W High Pressure Sodium	System Wattage (W)	120	208	240	277	480
	Nominal Current	4.00 A	2.20 A	2.00 A	1.70 A	1.00 A
	Ballast Factor	1	1	1	1	1
	Ballast Efficiency Factor	0.85	0.85	0.85	0.85	0.85
	Max Input Current	4.00 A	2.20 A	2.00 A	1.70 A	1.00 A
	Starting Current	2.87 A	1.66 A	1.44 A	1.25 A	0.72 A
	Open Circuit Voltage	191V	191V	191V	191V	191V
	Drop Out Voltage	96V	166V	192V	222V	384V
	Power Factor (≥)%	90	90	90	90	90
	Min. Starting Temp (*F/*C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30	-22 / -30
	Fuse Rating	15	8	8	5	5
	UL Bench Top Rise	C	C	C	C	C

Safety and performance  UL Listed

87164 – GES400MLTAC4-5

High Pressure Sodium

1 – 400W HPS S51 Quad (120/208/240/277V)

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	S51
Voltage	120/208/240/277
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil filled
Capacitance	55 Mfd
Voltage (MIN)	240
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	HPS400-3A 86641
Sound Rating	
Additional Info	

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	3

Specifications by lamp and line voltage					
Lamp	Specifications by line voltage				
S51 400W High Pressure Sodium	System Wattage (W)	120	208	240	277
	Nominal Current	3.80 A	2.20 A	1.90 A	1.60 A
	Ballast Factor	1	1	1	1
	Ballast Efficiency Factor	0.90	0.90	0.90	0.90
	Max Input Current	3.80 A	2.20 A	1.90 A	1.60 A
	Starting Current	1.78 A	1.03 A	0.90 A	0.77 A
	Open Circuit Voltage	186V	186V	186V	186V
	Drop Out Voltage	96V	166V	192V	222V
	Power Factor (≥)%	90	90	90	90
	Min. Starting Temp (*F/*C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30
	Fuse Rating	15	8	8	5
	UL Bench Top Rise	D	D	D	D

Safety and performance  UL Listed

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement
- 5-top ballast (120, 208, 240, 277, or 480 volt) featuring a 480-volt tap

Dimensions	
Wiring diagram HID W-(B)-87214-87215-87218 – see example on page 181	
Case dimensions – Ref Drawing PC2 – see page 185	
Length (L)	5.25 in (133.35 mm)
Width (W)	1.25 in (31.75 mm)
Mounting dimensions	
Mount Length (M)	4.6 in (116.84 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	2.0
B	4.0
Weight	15.00 lbs
Exit Type	Side
Nominal Length	4.2 in (107.95 mm)
Frame Size (H x L)	4.25 in x 4.75 in
Lead lengths	
Orange	
Violet and Black	
Violet/White	
Black/Yellow	

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	3

Specifications by lamp and line voltage						
Lamp	Specifications by line voltage					
S51 400W High Pressure Sodium	System Wattage (W)	120	208	240	277	480
	Nominal Current	4.00 A	2.20 A	2.00 A	1.70 A	1.00 A
	Ballast Factor	1	1	1	1	1
	Ballast Efficiency Factor	0.85	0.85	0.85	0.85	0.85
	Max Input Current	4.00 A	2.20 A	2.00 A	1.70 A	1.00 A
	Starting Current	2.87 A	1.66 A	1.44 A	1.25 A	0.72 A
	Open Circuit Voltage	191V	191V	191V	191V	191V
	Drop Out Voltage	96V	166V	192V	222V	384V
	Power Factor (≥)%	90	90	90	90	90
	Min. Starting Temp (*F/*C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30	-22 / -30
	Fuse Rating	15	8	8	5	5
	UL Bench Top Rise	C	C	C	C	C

Safety and performance  UL Listed

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement
- Quad ballast (120, 208, 240, 277)

Dimensions	
Wiring diagram HID W-(A)-87056-87121-87164 – see example on page 181	
Case dimensions – Ref Drawing PC2 – see page 185	
Length (L)	5.25 in (133.35 mm)
Width (W)	1.25 in (31.75 mm)
Mounting dimensions	
Mount Length (M)	4.6 in (116.84 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	2.0
B	4.0
Weight	13.60 lbs
Exit Type	Side
Nominal Length	4.2 in (107.95 mm)
Frame Size (H x L)	4.25 in x 4.75 in

High Pressure Sodium

For 250 – 1000W High Pressure Sodium HID Lamps

87198 – GES40048TAC4-5

High Pressure Sodium

1 – 400W HPS S51 480V in smaller frame


General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	S51
Voltage	480
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil filled
Capacitance	55 Mfd
Voltage (MIN)	240
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	HPS400-3A
Sound Rating	
Additional Info	

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	3

Specifications by lamp and line voltage

Lamp	Specifications by line voltage	
S51 400W High Pressure Sodium		480
	System Wattage (W)	475
	Nominal Current	1.00 A
	Ballast Factor	1
	Ballast Efficiency Factor	0.84
	Max Input Current	1.00 A
	Starting Current	0.60 A
	Open Circuit Voltage	195V
	Drop Out Voltage	384V
	Power Factor (≥)%	90
	Min. Starting Temp (°F/°C)	-22 / -30
	Fuse Rating	5
	UL Bench Top Rise	D

Safety and performance  

87048 – GES100048TAC5-5

High Pressure Sodium

1 – 1000W HPS S52 480V

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	S52
Voltage	480
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil filled
Capacitance	26 Mfd
Voltage (MIN)	525
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	HPS24
Sound Rating	
Additional Info	

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	2

Specifications by lamp and line voltage

Lamp	Specifications by line voltage	
S52 1000W High Pressure Sodium		480
	System Wattage (W)	1,129
	Nominal Current	2.13 A
	Ballast Factor	1
	Ballast Efficiency Factor	0.89
	Max Input Current	2.13 A
	Starting Current	1.80 A
	Open Circuit Voltage	433V
	Drop Out Voltage	384V
	Power Factor (≥)%	90
	Min. Starting Temp (°F/°C)	-22 / -30
	Fuse Rating	8
	UL Bench Top Rise	D

Safety and performance  

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement

Dimensions	
Wiring diagram HID W-(D)-87048-87198-46936 – see example on page 181	
Case dimensions – Ref Drawing PC2 – see page 185	
Length (L)	5.25 in (133.35 mm)
Width (W)	1.25 in (31.75 mm)
Mounting dimensions	
Mount Length (M)	4.6 in (116.84 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	2.3
B	4.1
Weight	15.00 lbs
Exit Type	Side
Nominal Length	4.2 in (107.95 mm)
Frame Size (H x L)	4.25 in x 4.75 in

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement

Dimensions	
Wiring diagram HID W-(D)-87048-87198-46936 – see example on page 181	
Case dimensions – Ref Drawing PC3 – see page 185	
Length (L)	7.75 in (196.85 mm)
Width (W)	2.75 in (69.85 mm)
Mounting dimensions	
Mount Length (M)	6.1 in (154.94 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	3.8
B	6.0
Weight	28.00 lbs
Exit Type	Side
Nominal Length	4.7 in (120.65 mm)
Frame Size (H x L)	4.25 in x 6.00 in

High Pressure Sodium

For 250 – 1000W High Pressure Sodium HID Lamps

87218 – GES1000ML5AC5-5

High Pressure Sodium

1 – 1000W HPS S52 5-Tap (120/208/240/277/480V)

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	S52
Voltage	120/208/240/277/480
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil filled
Capacitance	26 Mfd
Voltage (MIN)	525
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	HPS1000-4B
Sound Rating	
Additional Info	

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	2

Specifications by lamp and line voltage

Lamp	Specifications by line voltage					
S52 1000W High Pressure Sodium		120	208	240	277	480
	System Wattage (W)	1,102	1,102	1,102	1,102	1,102
	Nominal Current	9.50 A	5.50 A	4.70 A	4.10 A	2.40 A
	Ballast Factor	1	1	1	1	1
	Ballast Efficiency Factor	0.91	0.91	0.91	0.91	0.91
	Max Input Current	9.50 A	5.50 A	4.70 A	4.10 A	2.40 A
	Starting Current	5.75 A	3.40 A	2.90 A	2.60 A	1.80 A
	Open Circuit Voltage	435V	435V	435V	435V	435V
	Drop Out Voltage	96V	166V	192V	222V	384V
	Power Factor (≥)%	90	90	90	90	90
	Min. Starting Temp (°F/°C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30	-22 / -30
	Fuse Rating	20	15	10	10	8
	UL Bench Top Rise	D	D	D	D	D

Safety and performance  

87056 – GES1000MLTAC5-5

High Pressure Sodium

1 – 1000W HPS S52 Quad (120/208/240/277V)

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	S52
Voltage	120/208/240/277
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil filled
Capacitance	26 Mfd
Voltage (MIN)	525
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	HPS1000-4B
Sound Rating	
Additional Info	

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	2

Specifications by lamp and line voltage

Lamp	Specifications by line voltage				
S52 1000W High Pressure Sodium		120	208	240	277
	System Wattage (W)	1,100	1,100	1,100	1,100
	Nominal Current	9.50 A	5.50 A	4.80 A	4.20 A
	Ballast Factor	1	1	1	1
	Ballast Efficiency Factor	0.91	0.91	0.91	0.91
	Max Input Current	9.50 A	5.50 A	4.80 A	4.20 A
	Starting Current	5.00 A	3.00 A	2.60 A	2.20 A
	Open Circuit Voltage	430V	430V	430V	430V
	Drop Out Voltage	96V	166V	192V	222V
	Power Factor (≥)%				
	Min. Starting Temp (°F/°C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30
	Fuse Rating	20	15	10	10
	UL Bench Top Rise	A	A	A	A

Safety and performance  

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement
- 5-tap ballast (120, 208, 240, 277, or 480 volt) featuring a 480-volt tap

Dimensions	
Wiring diagram HID W-(B)-87214-87215-87218 – see example on page 181	
Case dimensions – Ref Drawing PC3 – see page 185	
Length (L)	7.75 in (196.85 mm)
Width (W)	2.75 in (69.85 mm)
Mounting dimensions	
Mount Length (M)	6.1 in (154.94 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	4.0
B	6.0
Weight	28.00 lbs
Exit Type	Side
Nominal Length	4.7 in (120.65 mm)
Frame Size (H x L)	4.25 in x 6.00 in
Lead lengths	
Orange	
Violet and Black	
Violet/White	
Black/Yellow	

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement
- Quad ballast (120, 208, 240, 277)

Dimensions	
Wiring diagram HID W-(A)-87056-87121-87164 – see example on page 181	
Case dimensions – Ref Drawing PC3 – see page 185	
Length (L)	7.75 in (196.85 mm)
Width (W)	2.75 in (69.85 mm)
Mounting dimensions	
Mount Length (M)	6.1 in (154.94 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	4.0
B	6.0
Weight	28.00 lbs
Exit Type	Side
Nominal Length	4.7 in (120.65 mm)
Frame Size (H x L)	4.25 in x 6.00 in

High Intensity Discharge Lamp Ballast Kits

71701 – GEM175ML5AC3-55

High Intensity Discharge Lamp Ballast Kits

1 – 175W MH M57 or H39 5-Tap (120/208/240/277/480V) Lamp & Ballast Kit (-55)

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	M57, H38, M109
Voltage	120/208/240/277/480
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil filled
Capacitance	10 Mfd
Voltage (MIN)	400
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	
Sound Rating	
Additional Info	

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	6

Specifications by lamp and line voltage						
Lamp	Specifications by line voltage					
M57, H39, M109		120	208	240	277	480
	System Wattage (W)	202	202	202	202	202
	Nominal Current	1.70 A	1.00 A	0.90 A	0.80 A	0.40 A
	Ballast Factor	1	1	1	1	1
	Ballast Efficiency Factor	0.87	0.87	0.87	0.87	0.87
	Max Input Current	1.70 A	1.00 A	0.90 A	0.80 A	0.40 A
	Starting Current	0.60 A	0.37 A	0.32 A	0.28 A	0.21 A
	Open Circuit Voltage	307V	307V	307V	307V	307V
	Drop Out Voltage	96V	166V	192V	222V	384V
	Power Factor (s=)%	90	90	90	90	90
	Min. Starting Temp (*F/*C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30	-22 / -30
	Fuse Rating	5	3	3	2	1.5
	UL Bench Top Rise	D	C	C	C	C

Safety and performance  UL Listed

71702 – GEM250ML5AC3-55

High Intensity Discharge Lamp Ballast Kits

1 – 250W MH M58 or H37 5-Tap (120/208/240/277/480V) Lamp & Ballast Kit (-55)

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	M58, H37
Voltage	120/208/240/277/480
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil filled
Capacitance	15 Mfd
Voltage (MIN)	400
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	
Sound Rating	
Additional Info	

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	6

Specifications by lamp and line voltage						
Lamp	Specifications by line voltage					
M58, H37		120	208	240	277	480
	System Wattage (W)	280	280	280	280	280
	Nominal Current	2.50 A	1.40 A	1.25 A	1.10 A	0.65 A
	Ballast Factor	1	1	1	1	1
	Ballast Efficiency Factor	0.89	0.89	0.89	0.89	0.89
	Max Input Current	2.60 A	1.60 A	1.30 A	1.20 A	0.70 A
	Starting Current	1.50 A	1.00 A	0.80 A	0.70 A	0.50 A
	Open Circuit Voltage	290V	290V	290V	290V	290V
	Drop Out Voltage	96V	166V	192V	222V	384V
	Power Factor (s=)%	90	90	90	90	90
	Min. Starting Temp (*F/*C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30	-22 / -30
	Fuse Rating	8	5	4	3	2
	UL Bench Top Rise	B	B	B	C	C

Safety and performance  UL Listed

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement
- 5-tap ballast (120, 208, 240, 277, or 480 volt) featuring a 480-volt tap

Dimensions	
Wiring diagram HID W-(K)-86808-87210-87211 – see example on page 183	
Case dimensions – Ref Drawing PC2 – see page 185	
Length (L)	5.3 in (133.35 mm)
Width (W)	1.3 in (31.75 mm)
Mounting dimensions	
Mount Length (M)	4.6 in (116.84 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.3 in (6.35 mm)
A	3.0
B	4.0
Weight	8.00 lbs
Exit Type	Side
Nominal Length	3.2 in (82.55 mm)
Frame Size (H x L)	2.813 in x 3.939 in
Lead Lengths	
Orange and Red	
Violet and Black	
Black/Yellow	
Violet/White	
Yellow	

Specifications by lamp and line voltage						
Lamp	Specifications by line voltage					
M59, H33		120	208	240	277	480
	System Wattage (W)	436	436	436	436	436
	Nominal Current	3.70 A	2.10 A	1.90 A	1.60 A	0.90 A
	Ballast Factor					
	Ballast Efficiency Factor	0.92	0.92	0.92	0.92	0.92
	Max Input Current	3.70 A	2.10 A	1.90 A	1.60 A	0.90 A
	Starting Current	2.19 A	1.31 A	1.11 A	1.00 A	0.60 A
	Open Circuit Voltage	300V	300V	300V	300V	300V
	Drop Out Voltage	96V	166V	192V	222V	384V
	Power Factor (s=)%	90	90	90	90	90
	Min. Starting Temp (*F/*C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30	-22 / -30
	Fuse Rating	10	8	5	5	5
	UL Bench Top Rise	E	E	E	E	E

High Intensity Discharge Lamp Ballast Kits

71703 – GEM400ML5AC4-55

High Intensity Discharge Lamp Ballast Kits

1 – 400W MH M59 or H33 5-Tap (120/208/240/277/480V) Lamp & Ballast Kit (-55)

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	M59, H33
Voltage	120/208/240/277/480
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil filled
Capacitance	24 Mfd
Voltage (MIN)	400
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	
Sound Rating	
Additional Info	

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	3

Specifications by lamp and line voltage						
Lamp	Specifications by line voltage					
M59, H33		120	208	240	277	480
	System Wattage (W)	436	436	436	436	436
	Nominal Current	3.70 A	2.10 A	1.90 A	1.60 A	0.90 A
	Ballast Factor					
	Ballast Efficiency Factor	0.92	0.92	0.92	0.92	0.92
	Max Input Current	3.70 A	2.10 A	1.90 A	1.60 A	0.90 A
	Starting Current	2.19 A	1.31 A	1.11 A	1.00 A	0.60 A
	Open Circuit Voltage	300V	300V	300V	300V	300V
	Drop Out Voltage	96V	166V	192V	222V	384V
	Power Factor (s=)%	90	90	90	90	90
	Min. Starting Temp (*F/*C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30	-22 / -30
	Fuse Rating	10	8	5	5	5
	UL Bench Top Rise	E	E	E	E	E

Safety and performance  UL Listed

71704 – GEM1000ML5AC4-55

High Intensity Discharge Lamp Ballast Kits


1 – 1000W MH M47 or H36 5-Tap (120/208/240/277/480V) Lamp & Ballast Kit (-55)

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	M47, H36
Voltage	120/208/240/277/480
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil filled
Capacitance	24 Mfd
Voltage (MIN)	400
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	
Sound Rating	
Additional Info	

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	2

Specifications by lamp and line voltage						
Lamp	Specifications by line voltage					
M47, H33		120	208	240	277	480
	System Wattage (W)	1103	1103	1103	1103	1103
	Nominal Current	9.30 A	5.40 A	4.70 A	4.10 A	2.40 A
	Ballast Factor	1	1	1	1	1
	Ballast Efficiency Factor	0.91	0.91	0.91	0.91	0.91
	Max Input Current	9.30 A	5.40 A	4.70 A	4.10 A	2.40 A
	Starting Current	6.34 A	3.71 A	3.20 A	2.79 A	1.65 A
	Open Circuit Voltage	445V	445V	445V	445V	445V
	Drop Out Voltage	96V	166V	192V	222V	384V
	Power Factor (s=)%	90	90	90	90	90
	Min. Starting Temp (*F/*C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30	-22 / -30
	Fuse Rating	20	15	10	10	10
	UL Bench Top Rise	E	C	C	C	D

Safety and performance  UL Listed

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement
- 5-tap ballast (120, 208, 240, 277, or 480 volt) featuring a 480-volt tap

Dimensions	
Wiring diagram HID W-(K)-86808-87210-87211 – see example on page 183	
Case dimensions – Ref Drawing PC1 – see page 185	
Length (L)	5.3 in (133.35 mm)
Width (W)	1.3 in (31.75 mm)
Mounting dimensions	
Mount Length (M)	4.6 in (116.84 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.3 in (6.35 mm)
A	2.0
B	4.0
Weight	12.50 lbs
Exit Type	Side
Nominal Length	3.7 in (95.25 mm)
Frame Size (H x L)	4.25 in x 4.75 in
Lead Lengths	
Orange and Red	
Violet and Black	
Black/Yellow	
Violet/White	
Yellow	

Specifications by lamp and line voltage						
Lamp	Specifications by line voltage					
M59, H33		120	208	240	277	480
	System Wattage (W)	436	436	436	436	436
	Nominal Current	3.70 A	2.10 A	1.90 A	1.60 A	0.90 A
	Ballast Factor					
	Ballast Efficiency Factor	0.92	0.92	0.92	0.92	0.92
	Max Input Current	3.70 A	2.10 A	1.90 A	1.60 A	0.90 A
	Starting Current	2.19 A	1.31 A	1.11 A	1.00 A	0.60 A
	Open Circuit Voltage	300V	300V	300V	300V	300V
	Drop Out Voltage	96V	166V	192V	222V	384V
	Power Factor (s=)%	90	90	90	90	90
	Min. Starting Temp (*F/*C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30	-22 / -30
	Fuse Rating	10	8	5	5	5
	UL Bench Top Rise	E	E	E	E	E

Safety and performance  UL Listed

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement
- 5-tap ballast (120, 208, 240, 277, or 480 volt) featuring a 480-volt tap

Dimensions	
Wiring diagram HID W-(K)-86808-87210-87211 – see example on page 183	
Case dimensions – Ref Drawing PC1 – see page 185	
Length (L)	7.8 in (196.85 mm)
Width (W)	2.8 in (69.85 mm)
Height (H)	
Mounting dimensions	
Mount Length (M)	6.1 in (154.94 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.3 in (6.35 mm)
A	3.0
B	5.0
Weight	21.00 lbs
Exit Type	Side
Nominal Length	3.7 in (95.25 mm)
Frame Size (H x L)	4.25 in x 6.00 in
Lead Lengths	
Orange and Red	
Violet and Black	
Black/Yellow	
Violet/White	
Yellow	

Specifications by lamp and line voltage						
Lamp	Specifications by line voltage					
M47, H33		120	208	240	277	480
	System Wattage (W)	1103	1103	1103	1103	1103
	Nominal Current	9.30 A	5.40 A	4.70 A	4.10 A	2.40 A
	Ballast Factor	1	1	1	1	1
	Ballast Efficiency Factor	0.91	0.91	0.91	0.91	0.91
	Max Input Current	9.30 A	5.40 A			

High Intensity Discharge Lamp Ballast Kits

71705 – GES100MLTLC3D-55

High Intensity Discharge Lamp Ballast Kits

1 – 100W HPS S54 Quad (120/208/240/277V) Lamp & Ballast Kit (-55)

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	S54
Voltage	120/208/240/277
Line Voltage Regulation (+/-)	5%
Circuit Type	HX-HPF
Insulation Class	180C
Type of Capacitor	Dry Film
Capacitance	10 Mfd
Voltage (MIN)	280
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	HPS100-3A 86884
Sound Rating	
Additional Info	

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	6

Specifications by lamp and line voltage					
Lamp	Specifications by line voltage				
	120	208	240	277	
S54					
100W High	System Wattage (W)	123	123	123	123
Pressure Sodium	Nominal Current	2.20 A	1.30 A	1.10 A	0.90 A
	Ballast Factor	1	1	1	1
150W High	Ballast Efficiency Factor	1.22	1.22	1.22	1.22
	Max Input Current	2.18 A	1.27 A	1.13 A	0.94 A
Pressure Sodium	Starting Current	0.74 A	0.43 A	0.36 A	0.31 A
	Open Circuit Voltage	119V	119V	119V	119V
	Drop Out Voltage	96V	166V	192V	222V
	Power Factor (≥)%	90	90	90	90
	Min. Starting Temp (°F/°C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30
	Fuse Rating	8	5	5	3
	UL Bench Top Rise	B	B	B	B

Safety and performance  UL Listed

71706 – GES250ML5AC4-55

High Intensity Discharge Lamp Ballast Kits

1 – 250W HPS S50 5-Tap (120/208/240/277/480V) Lamp & Ballast Kit (-55)

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	S50
Voltage	120/208/240/277/480
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil Filled
Capacitance	35 Mfd
Voltage (MIN)	240
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	HPS400-3A 86641
Sound Rating	
Additional Info	

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	3

Specifications by lamp and line voltage						
Lamp	Specifications by line voltage					
	120	208	240	277	480	
S50						
250W High	System Wattage (W)	292	292	292	292	292
Pressure Sodium	Nominal Current	2.50 A	1.50 A	1.30 A	1.10 A	0.60 A
	Ballast Factor	1	1	1	1	1
	Ballast Efficiency Factor	0.86	0.86	0.86	0.86	0.86
	Max Input Current	2.50 A	1.50 A	1.30 A	1.10 A	0.60 A
	Starting Current	1.59 A	0.93 A	0.81 A	0.70 A	0.40 A
	Open Circuit Voltage	186V	186V	186V	186V	186V
	Drop Out Voltage	96V	166V	192V	222V	384V
	Power Factor (≥)%	90	90	90	90	90
	Min. Starting Temp (°F/°C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30	-22 / -30
	Fuse Rating	8	5	4	4	4
	UL Bench Top Rise	C	C	B	B	B

Safety and performance  UL Listed


- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement
- 5-tap ballast (120, 208, 240, 277, or 480 volt) featuring a 480-volt tap

Dimensions	
Wiring diagram HID W-(K)-87212-87213 – see example on page 183	
Case dimensions – Ref Drawing PC3 – see page 185	
Length (L)	5.3 in (133.35 mm)
Width (W)	1.3 in (31.75 mm)
Mounting dimensions	
Mount Length (M)	4.6 in (116.84 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.3 in (6.35 mm)
A	2.0
B	4.0
Weight	6.20 lbs
Exit Type	Side
Nominal Length	2.7 in (68.58 mm)
Frame Size (H x L)	2.813 in x 3.939 in

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	3

Specifications by lamp and line voltage						
Lamp	Specifications by line voltage					
	120	208	240	277	480	
S51						
400W High	System Wattage (W)	472	472	472	472	472
Pressure Sodium	Nominal Current	4.00 A	2.20 A	2.00 A	1.70 A	1.00 A
	Ballast Factor	1	1	1	1	1
	Ballast Efficiency Factor	0.85	0.85	0.85	0.85	0.85
	Max Input Current	4.00 A	2.20 A	2.00 A	1.70 A	1.00 A
	Starting Current	2.87 A	1.66 A	1.44 A	1.25 A	0.72 A
	Open Circuit Voltage	191V	191V	191V	191V	191V
	Drop Out Voltage	96V	166V	192V	222V	384V
	Power Factor (≥)%	90	90	90	90	90
	Min. Starting Temp (°F/°C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30	-22 / -30
	Fuse Rating	15	8	8	5	5
	UL Bench Top Rise	C	C	C	C	C

Safety and performance  UL Listed

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement
- 5-tap ballast (120, 208, 240, 277, or 480 volt) featuring a 480-volt tap

Dimensions	
Wiring diagram HID W-(B)-87214-87215-87218 – see example on page 181	
Case dimensions – Ref Drawing PC2 – see page 185	
Length (L)	5.3 in (133.35 mm)
Width (W)	1.3 in (31.75 mm)
Mounting dimensions	
Mount Length (M)	4.6 in (116.84 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.3 in (6.35 mm)
A	2.0
B	4.0
Weight	12.00 lbs
Exit Type	Side
Nominal Length	3.7 in (95.25 mm)
Frame Size (H x L)	4.25 in x 4.75 in
Lead Lengths	
Orange and Red	
Violet and Black	
Black/Yellow	
Violet/White	
Yellow	

Specifications by lamp and line voltage						
Lamp	Specifications by line voltage					
	120	208	240	277	480	
S50						
250W High	System Wattage (W)	292	292	292	292	292
Pressure Sodium	Nominal Current	2.50 A	1.50 A	1.30 A	1.10 A	0.60 A
	Ballast Factor	1	1	1	1	1
	Ballast Efficiency Factor	0.86	0.86	0.86	0.86	0.86
	Max Input Current	2.50 A	1.50 A	1.30 A	1.10 A	0.60 A
	Starting Current	1.59 A	0.93 A	0.81 A	0.70 A	0.40 A
	Open Circuit Voltage	186V	186V	186V	186V	186V
	Drop Out Voltage	96V	166V	192V	222V	384V
	Power Factor (≥)%	90	90	90	90	90
	Min. Starting Temp (°F/°C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30	-22 / -30
	Fuse Rating	8	5	4	4	4
	UL Bench Top Rise	C	C	B	B	B

Safety and performance  UL Listed

High Intensity Discharge Lamp Ballast Kits

71707 – GES400ML5AC4-55

High Intensity Discharge Lamp Ballast Kits

1 – 400W HPS S51 5-Tap (120/208/240/277/480V) Lamp & Ballast Kit (-55)

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	S51
Voltage	120/208/240/277/480
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	180C
Type of Capacitor	Oil Filled
Capacitance	55 Mfd
Voltage (MIN)	240
Capacitor Temperature Rating	100°C (212°F)
GE Igniter	HPS1000-4B
Sound Rating	
Additional Info	

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Distributor Kit	1	3

Specifications by lamp and line voltage						
Lamp	Specifications by line voltage					
	120	208	240	277	480	
S51						
400W High	System Wattage (W)	472	472	472	472	472
Pressure Sodium	Nominal Current	4.00 A	2.20 A	2.00 A	1.70 A	1.00 A
	Ballast Factor	1	1	1	1	1
	Ballast Efficiency Factor	0.85	0.85	0.85	0.85	0.85
	Max Input Current	4.00 A	2.20 A	2.00 A	1.70 A	1.00 A
	Starting Current	2.87 A	1.66 A	1.44 A	1.25 A	0.72 A
	Open Circuit Voltage	191V	191V	191V	191V	191V
	Drop Out Voltage	96V	166V	192V	222V	384V
	Power Factor (≥)%	90	90	90	90	90
	Min. Starting Temp (°F/°C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30	-22 / -30
	Fuse Rating	15	8	8	5	5
	UL Bench Top Rise	C	C	C	C	C

Safety and performance  UL Listed

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement
- 5-tap ballast (120, 208, 240, 277, or 480 volt) featuring a 480-volt tap

Dimensions	
Wiring diagram HID W-(B)-87214-87215-87218 – see example on page 181	
Case dimensions – Ref Drawing PC2 – see page 185	
Length (L)	5.3 in (133.35 mm)
Width (W)	1.3 in (31.75 mm)
Mounting dimensions	
Mount Length (M)	4.6 in (116.84 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.3 in (6.35 mm)
A	2.0
B	4.0
Weight	12.00 lbs
Exit Type	Side
Nominal Length	3.7 in (95.25 mm)
Frame Size (H x L)	4.25 in x 4.75 in
Lead Lengths	
Orange and Red	
Violet and Black	
Black/Yellow	
Violet/White	
Yellow	

Specifications by lamp and line voltage						
Lamp	Specifications by line voltage					
	120	208	240	277	480	
S50						
250W High	System Wattage (W)	292	292	292	292	292
Pressure Sodium	Nominal Current	2.50 A	1.50 A	1.30 A	1.10 A	0.60 A
	Ballast Factor	1	1	1	1	1
	Ballast Efficiency Factor	0.86	0.86	0.86	0.86	0.86
	Max Input Current	2.50 A	1.50 A	1.30 A	1.10 A	0.60 A
	Starting Current	1.59 A	0.93 A	0.81 A	0.70 A	0.40 A
	Open Circuit Voltage	186V	186V	186V	186V	186V
	Drop Out Voltage	96V	166V	192V	222V	384V
	Power Factor (≥)%	90	90	90	90	90
	Min. Starting Temp (°F/°C)	-22 / -30	-22 / -30	-22 / -30	-22 / -30	-22 / -30
	Fuse Rating	8	5	4	4	4
	UL Bench Top Rise	C	C	B	B	B

Safety and performance  UL Listed

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity
- Distributor replacement kit contains the appropriate core and coil with color coded leads, a properly rated capacitor and ignitor (if required) and all other components required for ballast replacement
- 5-tap ballast (120, 208, 240, 277, or 480 volt) featuring a 480-volt tap

Dimensions	
Wiring diagram HID W-(B)-87214-87215-87218 – see example on page 181	
Case dimensions – Ref Drawing PC2 – see page 185	
Length (L)	5.3 in (133.35 mm)
Width (W)	1.3 in (31.75 mm)
Mounting dimensions	
Mount Length (M)	4.6 in (116.84 mm)
Mount Width (X or F)</	

Enclosed and Potted Metal Halide

86576 – 11210277CTC000C

Enclosed and Potted Metal Halide

1 – 70W M85 120/277 Enclosed and Potted

General characteristics	
Ballast Type	Magnetic – F-Can
ANSI Lamp Codes	M98, M143
Voltage	120/277
Line Voltage Regulation (+/-)	5%
Circuit Type	HX-HPF
Insulation Class	90C
Type of Capacitor	
Capacitance	
Voltage (MIN)	
Capacitor Temperature Rating	100°C (212°F)
Sound Rating	
Additional Info	Thermally Protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Standard Pack	1	4

Specifications by lamp and line voltage			
Lamp	Specifications by line voltage		
M98, M143	120	277	
	90	90	
70W Ceramic Metal Halide	System Wattage (W)	0.78 A	0.35 A
	Nominal Current	1	1
70W Quartz Metal Halide	Ballast Factor	0.78	0.78
	Ballast Efficiency Factor	2.00 A	0.90 A
	Max Input Current	0.60 A	0.27 A
	Starting Current	250V	250V
	Open Circuit Voltage	66V	222V
	Drop Out Voltage	90	90
	Power Factor (≥)%	-22 / -30	-22 / -30
	Min. Starting Temp (°F/°C)	6	3
	Fuse Rating		
	UL Bench Top Rise		

Safety and performance  UL Listed

- For applications requiring quieter or cooler operation than provided by standard coil and coil ballasts
- Excellent sound-deadening and heat transfer qualities

Dimensions	
Wiring diagram HID H34 – see example on page 180	
Case dimensions – Ref Drawing FCAN1 – see page 184	
Length (L)	11.8 in (298.45 mm)
Width (W)	3.2 in (80.96 mm)
Height (H)	2.6 in (66.67 mm)
Mounting dimensions	
Mount Length (M)	11.1 in (282.97 mm)
Mount Width (X or F)	2.0 in (50.80 mm)
Mount Slots (MS)	0.2 in (5.95 mm)
Weight	11.00 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	20 ft
Remote Mounting Wire Gauge	18 AWG
Lead Lengths	
Black and White	
Red	
Black/Yellow	

- For applications requiring quieter or cooler operation than provided by standard coil and coil ballasts
- Excellent sound-deadening and heat transfer qualities

Dimensions	
Wiring diagram HID H34 – see example on page 180	
Case dimensions – Ref Drawing FCAN1 – see page 184	
Length (L)	11.8 in (298.45 mm)
Width (W)	3.2 in (80.96 mm)
Height (H)	2.6 in (66.67 mm)
Mounting dimensions	
Mount Length (M)	11.1 in (282.97 mm)
Mount Width (X or F)	2.0 in (50.80 mm)
Mount Slots (MS)	0.2 in (5.95 mm)
Weight	11.00 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	20 ft
Remote Mounting Wire Gauge	18 AWG
Lead Lengths	
Black and White	
Red	
Black/Yellow	

Safety and performance  UL Listed

Enclosed and Potted Metal Halide

86574 – 11210239CTC000I

Enclosed and Potted Metal Halide


1 – 100W M90 120/277 Enclosed and Potted

General characteristics	
Ballast Type	Magnetic – F-Can
ANSI Lamp Codes	M90
Voltage	120/277
Line Voltage Regulation (+/-)	5%
Circuit Type	HX-HPF
Insulation Class	90C
Type of Capacitor	
Capacitance	
Voltage (MIN)	
Capacitor Temperature Rating	100°C (212°F)
Sound Rating	B (25-30 decibels)
Additional Info	Thermally Protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Standard Pack	1	4

Specifications by lamp and line voltage			
Lamp	Specifications by line voltage		
M90	120	277	
	125	125	
100W Ceramic Metal Halide	System Wattage (W)	2.20 A	1.10 A
	Nominal Current	1	1
100W Quartz Metal Halide	Ballast Factor	0.80	0.80
	Ballast Efficiency Factor	2.20 A	1.10 A
	Max Input Current	1.10 A	0.50 A
	Starting Current	250V	250V
	Open Circuit Voltage	96V	222V
	Drop Out Voltage	90	90
	Power Factor (≥)%	-22 / -30	-22 / -30
	Min. Starting Temp (°F/°C)	8	4
	Fuse Rating		
	UL Bench Top Rise		

Safety and performance  UL Listed

86563 – 1110245SCTC000I

Enclosed and Potted Metal Halide


1 – 175W M57 120/277 Enclosed and Potted

General characteristics	
Ballast Type	Magnetic – F-Can
ANSI Lamp Codes	M57, H39
Voltage	120/277
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	90C
Type of Capacitor	
Capacitance	
Voltage (MIN)	
Capacitor Temperature Rating	100°C (212°F)
Sound Rating	B (25-30 decibels)
Additional Info	Thermally Protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Standard Pack	1	2

Specifications by lamp and line voltage			
Lamp	Specifications by line voltage		
M57, H39	120	277	
	205	205	
175W Ceramic Metal Halide	System Wattage (W)	1.75 a	0.75 A
	Nominal Current	1	1
150W Quartz Metal Halide	Ballast Factor	0.85	0.85
	Ballast Efficiency Factor		
	Max Input Current		
	Starting Current		
	Open Circuit Voltage	300V	300V
	Drop Out Voltage	96V	222V
	Power Factor (≥)%	90	90
	Min. Starting Temp (°F/°C)	-22 / -30	-22 / -30
	Fuse Rating	5	3
	UL Bench Top Rise		

Safety and performance  UL Listed

- For applications requiring quieter or cooler operation than provided by standard coil and coil ballasts
- Excellent sound-deadening and heat transfer qualities

Dimensions	
Wiring diagram HID H34 – see example on page 180	
Case dimensions – Ref Drawing FCAN1 – see page 184	
Length (L)	11.8 in (298.45 mm)
Width (W)	3.2 in (80.96 mm)
Height (H)	2.6 in (66.67 mm)
Mounting dimensions	
Mount Length (M)	11.1 in (282.97 mm)
Mount Width (X or F)	2.0 in (50.80 mm)
Mount Slots (MS)	0.2 in (5.95 mm)
Weight	11.00 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	20 ft
Remote Mounting Wire Gauge	18 AWG
Lead Lengths	
Black and White	
Red	
Black/Yellow	

- For applications requiring quieter or cooler operation than provided by standard coil and coil ballasts
- Excellent sound-deadening and heat transfer qualities

Dimensions	
Wiring diagram HID H34 – see example on page 180	
Case dimensions – Ref Drawing FCAN2 – see page 184	
Length (L)	14.3 in (363.72 mm)
Width (W)	3.2 in (80.96 mm)
Height (H)	2.6 in (66.67 mm)
Mounting dimensions	
Mount Length (M)	13.8 in (349.25 mm)
Mount Width (X or F)	2.0 in (50.80 mm)
Mount Slots (MS)	0.2 in (5.84 mm)
Weight	14.00 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	
Remote Mounting Wire Gauge	
Lead Lengths	
Black and White	
Red	
Black/Yellow	

Enclosed and Potted Metal Halide

86564 – 1110246CTC000C

Enclosed and Potted Metal Halide

1 – 250W M58 120/277 Enclosed and Potted

General characteristics	
Ballast Type	Magnetic – F-Can
ANSI Lamp Codes	M58, H37
Voltage	120/277
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	90C
Type of Capacitor	
Capacitance	
Voltage (MIN)	
Capacitor Temperature Rating	100°C (212°F)
Sound Rating	C (31-36 decibels)
Additional Info	Thermally Protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Standard Pack	1	2

Specifications by lamp and line voltage			
Lamp	Specifications by line voltage	120	277
M58, H37 250W Quartz Metal Halide	System Wattage (W)	295	295
	Nominal Current	2.50 A	1.10 A
	Ballast Factor	1	1
	Ballast Efficiency Factor	0.85	0.85
175W Quartz Metal Halide	Max Input Current		
	Starting Current		
250W Mercury	Open Circuit Voltage	280V	280V
	Drop Out Voltage	96V	222V
	Power Factor (≥)%	90	90
	Min. Starting Temp (°F/°C)	-22 / -30	-22 / -30
	Fuse Rating	8	4
	UL Bench Top Rise		

Safety and performance  UL Listed

- For applications requiring quieter or cooler operation than provided by standard coil and coil ballasts
- Excellent sound-deadening and heat transfer qualities

Dimensions	
Wiring diagram HID H34 – see example on page 180	
Case dimensions – Ref Drawing FCAN3 – see page 184	
Length (L)	16.8 in (425.45 mm)
Width (W)	3.2 in (81.02 mm)
Height (H)	2.7 in (69.59 mm)
Mounting dimensions	
Mount Length (M)	16.1 in (409.57 mm)
Mount Width (X or F)	2.0 in (50.80 mm)
Mount Slots (MS)	0.2 in (5.94 mm)
Weight	17.50 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	
Remote Mounting Wire Gauge	
Lead Lengths	
Black and White	
Red	
Black/Yellow	

- For applications requiring quieter or cooler operation than provided by standard coil and coil ballasts
- Excellent sound-deadening and heat transfer qualities

Dimensions	
Wiring diagram HID H34 – see example on page 180	
Case dimensions – Ref Drawing FCAN4 – see page 184	
Length (L)	19.3 in (488.95 mm)
Width (W)	3.2 in (80.96 mm)
Height (H)	2.6 in (66.67 mm)
Mounting dimensions	
Mount Length (M)	18.6 in (473.07 mm)
Mount Width (X or F)	2.0 in (50.80 mm)
Mount Slots (MS)	0.2 in (5.95 mm)
Weight	23.00 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	
Remote Mounting Wire Gauge	
Lead Lengths	
Black and White	
Red	
Black/Yellow	

42670 – 1110-247SC-TC

Enclosed and Potted Metal Halide

1 – 400W M59 120/277 Enclosed and Potted F-Can

General characteristics	
Ballast Type	Magnetic – F-Can
ANSI Lamp Codes	M59, H33
Voltage	120/277
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	90C
Type of Capacitor	
Capacitance	
Voltage (MIN)	
Capacitor Temperature Rating	100°C (212°F)
Sound Rating	C (31-36 decibels)
Additional Info	Thermally Protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Standard Pack	1	2

Specifications by lamp and line voltage			
Lamp	Specifications by line voltage	120	277
M59, H39 360W Quartz Metal Halide	System Wattage (W)	455	455
	Nominal Current	3.90 A	1.70 A
	Ballast Factor	1	1
	Ballast Efficiency Factor	0.88	0.88
400W Quartz Metal Halide	Max Input Current	3.90 A	1.70 A
	Starting Current	2.50 A	1.00 A
400W Mercury	Open Circuit Voltage	300V	300V
	Drop Out Voltage	66V	222V
	Power Factor (≥)%	90	90
	Min. Starting Temp (°F/°C)	-22 / -30	-22 / -30
	Fuse Rating	10	5
	UL Bench Top Rise	C	C

Safety and performance  UL Listed

Enclosed and Potted Metal Halide

80728 – 1111-247SCTC000I

Enclosed and Potted Metal Halide

1 – 400W M59 120/277 Enclosed and Potted

General characteristics	
Ballast Type	Magnetic – F-Can
ANSI Lamp Codes	M59, H33
Voltage	120/277
Line Voltage Regulation (+/-)	10%
Circuit Type	CWA
Insulation Class	90C
Type of Capacitor	
Capacitance	
Voltage (MIN)	
Capacitor Temperature Rating	100°C (212°F)
Sound Rating	C (31-36 decibels)
Additional Info	Thermally Protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Standard Pack	1	4

Specifications by lamp and line voltage			
Lamp	Specifications by line voltage	120	277
M59, H33 360W Quartz Metal Halide	System Wattage (W)	460	460
	Nominal Current	3.90 A	1.70 A
	Ballast Factor	1	1
	Ballast Efficiency Factor	0.87	0.87
400W Quartz Metal Halide	Max Input Current		
	Starting Current		
400W Mercury	Open Circuit Voltage	300V	300V
	Drop Out Voltage	96V	222V
	Power Factor (≥)%		
	Min. Starting Temp (°F/°C)	-22 / -30	-22 / -30
	Fuse Rating	10	5
	UL Bench Top Rise		

Safety and performance  UL Listed

- For applications requiring quieter or cooler operation than provided by standard coil and coil ballasts
- Excellent sound-deadening and heat transfer qualities

Dimensions	
Wiring diagram HID H36 – see example on page 180	
Case dimensions – Ref Drawing FCAN2 – see page 184	
Length (L)	14.3 in (363.72 mm)
Width (W)	3.2 in (80.96 mm)
Height (H)	2.6 in (66.67 mm)
Mounting dimensions	
Mount Length (M)	13.8 in (349.25 mm)
Mount Width (X or F)	2.0 in (50.80 mm)
Mount Slots (MS)	0.2 in (5.84 mm)
Weight	14.00 lbs
Exit Type	Side
Remote Mounting Distance to Lamp	
Remote Mounting Wire Gauge	
Lead Lengths	
Black and White	
Red	
Black/Yellow	

F-Can and Post Mount High Pressure Sodium

86605 – 1233142U0001

F-Can and Post Mount High Pressure Sodium

1 – 70W S62 120 Reactor-NPF

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	S62
Voltage	120
Line Voltage Regulation (+/-)	5%
Circuit Type	R-HPF
Insulation Class	R-NPF
Type of Capacitor	90C
Capacitance	
Voltage (MIN)	
Capacitor Temperature Rating	100°C (212°F)
Sound Rating	
Additional Info	

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Standard Pack	1	6

Specifications by lamp & line voltage			
Lamp	Specifications by line voltage	120	120
S62			
70W High Pressure Sodium	System Wattage (W)	83	83
	Nominal Current	0.75 A	1.60 A
	Ballast Factor	1	1
	Ballast Efficiency Factor	0.84	0.84
	Max Input Current	1.30 A	2.10 A
	Starting Current	0.90 A	2.10 A
	Open Circuit Voltage	120V	120V
	Drop Out Voltage	96V	96V
	Power Factor (≥)%	90	80
	Min. Starting Temp (°F/°C)	-22 / -30	-22 / -30
	Fuse Rating	5	8
	UL Bench Top Rise	A	A

Safety and performance  UL Listed

86596 – 12210237CTC0001

F-Can and Post Mount High Pressure Sodium

1 – 70W S62 120/277 E & P F-Can built-in starter

General characteristics	
Ballast Type	Magnetic – F-Can
ANSI Lamp Codes	S62
Voltage	120/277
Line Voltage Regulation (+/-)	5%
Circuit Type	HX-HPF
Insulation Class	90C
Type of Capacitor	
Capacitance	
Voltage (MIN)	
Capacitor Temperature Rating	100°C (212°F)
Sound Rating	
Additional Info	Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Standard Pack	1	4

Specifications by lamp & line voltage			
Lamp	Specifications by line voltage	120	277
S62			
70W High Pressure Sodium	System Wattage (W)	98	98
	Nominal Current	0.87 A	0.39 A
	Ballast Factor	1	1
	Ballast Efficiency Factor	0.71	0.71
	Max Input Current	0.87 A	0.39 A
	Starting Current	0.60 A	0.27 A
	Open Circuit Voltage	140V	140V
	Drop Out Voltage	96V	222V
	Power Factor (≥)%	90	90
	Min. Starting Temp (°F/°C)	-22 / -30	-22 / -30
	Fuse Rating	6	3
	UL Bench Top Rise		

Safety and performance  UL Listed

- Magnetic ballast construction ideal for a wide variety of lighting applications
- Precision-wound coils, ensuring even heat dissipation and the highest electrical integrity

Dimensions	
Wiring diagram HID H1a, HID H1 – see example on page 180	
Case dimensions – Ref Drawing 1 – see page 184	
Length (L)	4.00 in (101.60 mm)
Width (W)	0.75 in (19.05 mm)
Height (H)	0.00 in (2.36 mm)
Mounting dimensions	
Bracket Length (BL)	4.00 in (101.60 mm)
Mount Length (M)	3.30 in (85.09 mm)
Mount Width (X or F)	
Mount Slots (MS)	0.25 in (6.35 mm)
A	1.3
B	2.6
Weight	2.50 lbs
Exit Type	Side
Nominal Length	
Frame Size (H x L)	
Lead lengths	
Black	
Blue	
White	

- For applications requiring quieter or cooler operation than provided by standard coil & coil ballasts
- Excellent sound-deadening and heat transfer qualities

Dimensions	
Wiring diagram HID H34 – see example on page 180	
Case dimensions – Ref Drawing FCAN1 – see page 184	
Length (L)	11.75 in (298.45 mm)
Width (W)	3.188 in (80.96 mm)
Height (H)	2.625 in (66.67 mm)
Mounting dimensions	
Bracket Length (BL)	
Mount Length (M)	11.14 in (282.97 mm)
Mount Width (X or F)	2.00 in (50.80 mm)
Mount Slots (MS)	0.23 in (5.95 mm)
A	
B	
Weight	11.00 lbs
Exit Type	Side
Nominal Length	
Frame Size (H x L)	
Lead lengths	
White	
Black	
Black/Yellow	
Red	

F-Can and Post Mount High Pressure Sodium

86606 – 1233154U0001

F-Can and Post Mount High Pressure Sodium

1 – 150W S55 120 Reactor-NPF

General characteristics	
Ballast Type	Magnetic – Core and Coil
ANSI Lamp Codes	S55
Voltage	120
Line Voltage Regulation (+/-)	5%
Circuit Type	R-NPF
Insulation Class	180C
Type of Capacitor	
Capacitance	52 Mfd
Voltage (MIN)	120
Capacitor Temperature Rating	100°C (212°F)
Sound Rating	
Additional Info	Thermally protected

Electrical characteristics	
Supply Current Frequency	60 Hz

Order information		
Type	No. Items Per Sales Unit	No. Items Per Standard Package
Standard Pack	1	6

Specifications by lamp & line voltage			
Lamp	Specifications by line voltage	120	120
S55			
150W High Pressure Sodium	System Wattage (W)	171	171
	Nominal Current	1.50 A	3.20 A
	Ballast Factor	1	1
250W Quartz Metal Halide	Ballast Efficiency Factor	1.46	1.46
	Max Input Current	2.40 A	4.40 A
	Starting Current	2.20 A	4.40 A
	Open Circuit Voltage	120V	120V
	Drop Out Voltage	96V	96V
	Power Factor (≥)%	90	80
	Min. Starting Temp (°F/°C)	-22 / -30	-22 / -30
	Fuse Rating	8	15
	UL Bench Top Rise	A	A

Safety and performance  UL Listed

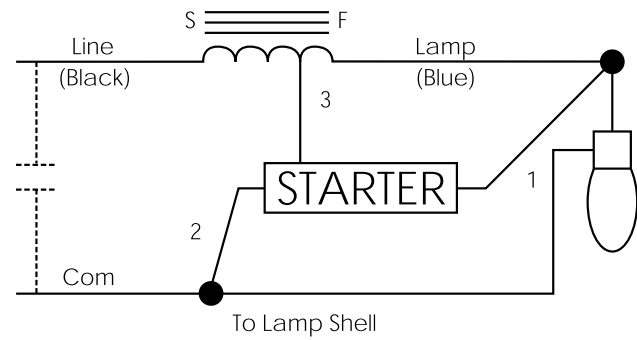
HID Accessories

HID Accessories	Prod Code	Description	Application	Units Per Carton
Replacement Capacitors	88980	005-1184-MF	10.0 MFD 400V 90C 2.4 MEG 1.50 oval 2.7 ht	20
	88982	005-1185-MF	15.0 MFD 400V 90C 1.6 MEG 1.75 oval 2.7 ht	20
	89007	005-1422-MF	48.0 MFD 300V 90C 0.6 MEG 1.75 oval 3.9 ht	20
	89077	005-2779-MF	24.0 MFD 480V 90C 1.75 oval 3.9 ht	20
	89083	005-3160-MF	24.0 MFD 360V 90C 1.0 MEG 1.75 oval 3.1 ht	20
Replacement Ignitors for Pulse Start Lamps (MH & HPS)	86864	MH100-3A	Ignitor for MH 30 50 70 100	20
	86635	HPS150-3A	Ignitor HPS 150 watts or less except 150w-S56	20
	86641	HPS400-3A	Ignitor HPS 200-400 watts & 150w S56	10
Other Accessories	47621	000-8724	HIDP Adjustable Mounting Bracket Hardware Kit	100
	86467	001-2009	Splice Box	10
	86468	004-9177	Adjustable Mounting Bracket For 4" HID	50
	86624	2BMB1000C	HID Parts E&P Mounting Bracket	50

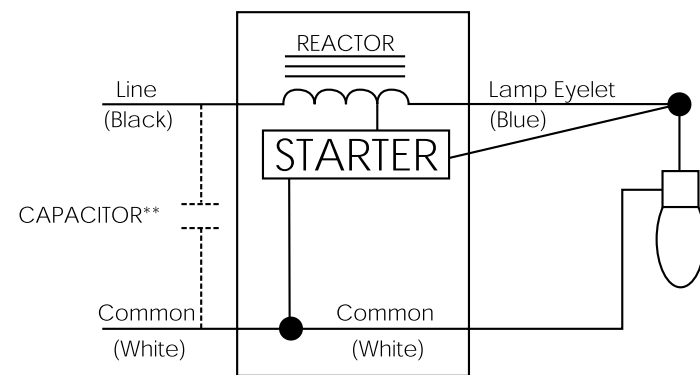
Wiring Diagrams

HID Electromagnetic Ballasts

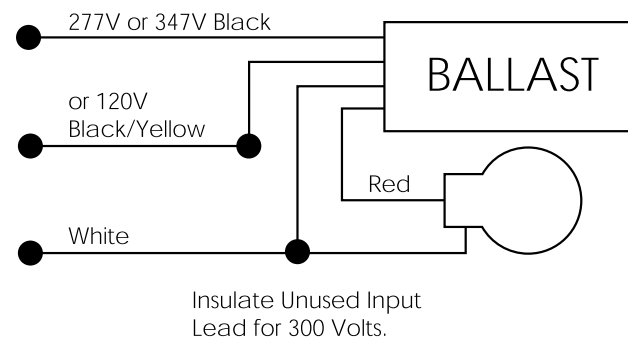
HID H1



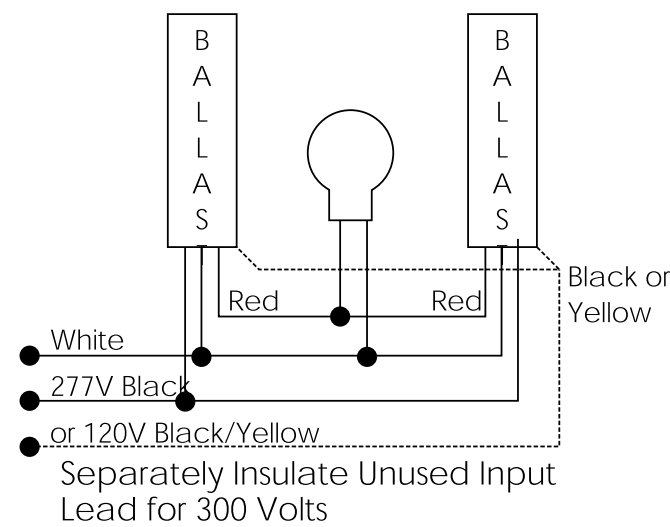
HID H1a



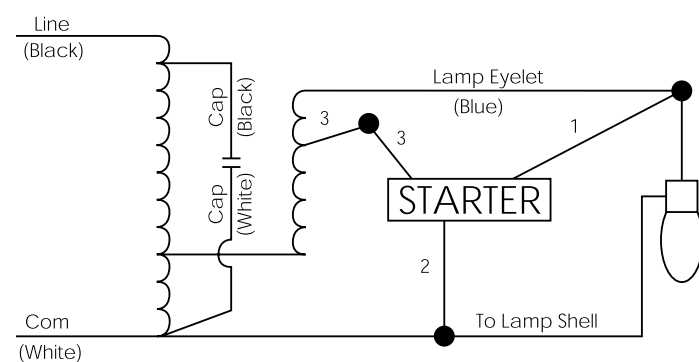
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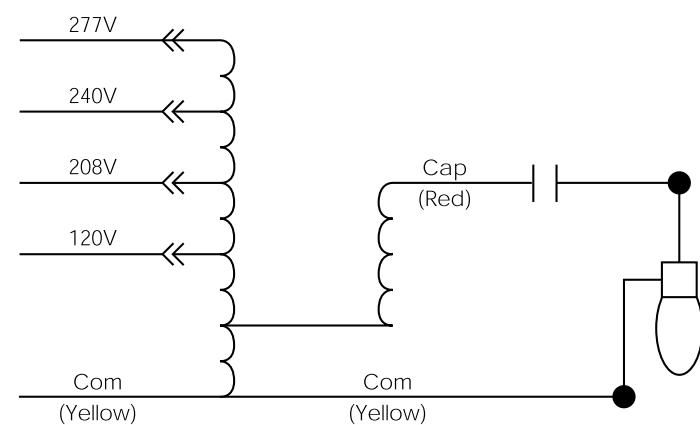
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HID H6



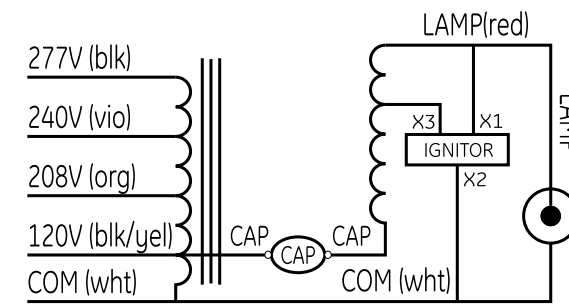
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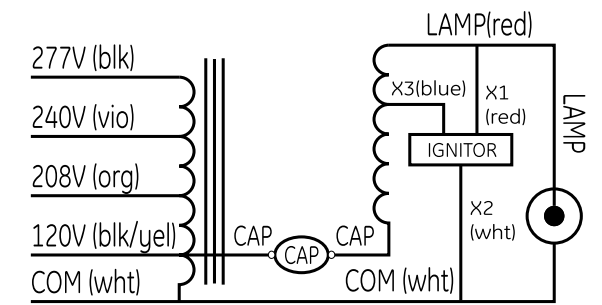
Wiring Diagrams

HID Electromagnetic Ballasts

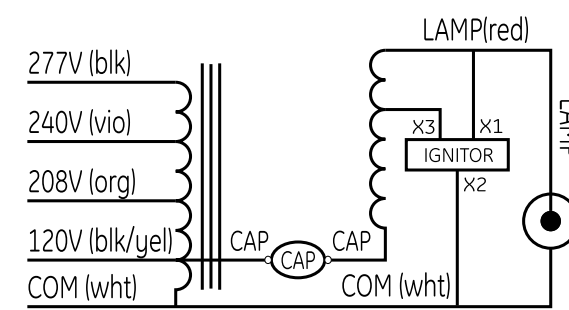
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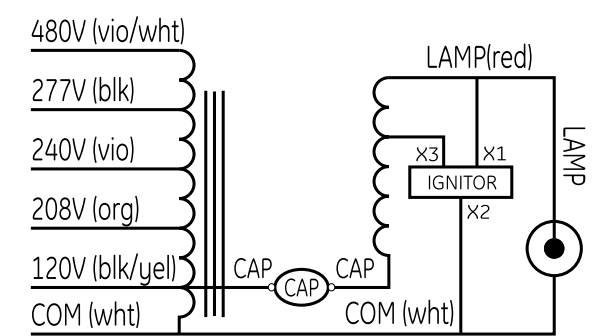
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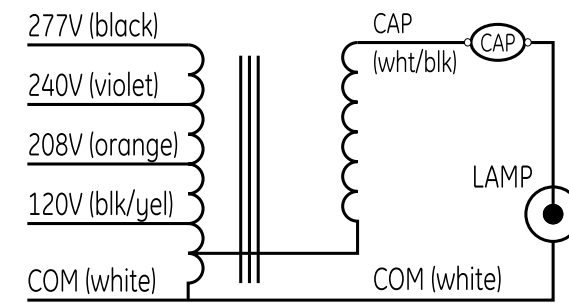
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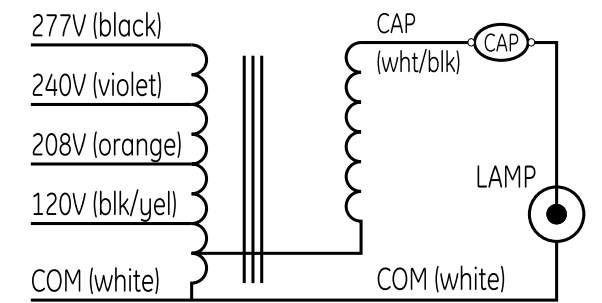
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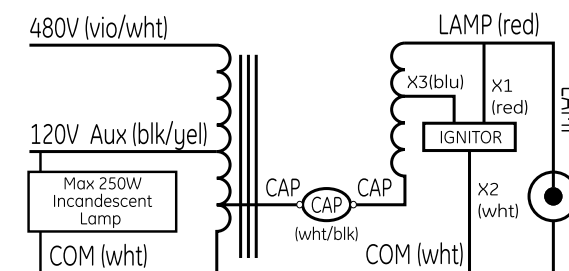
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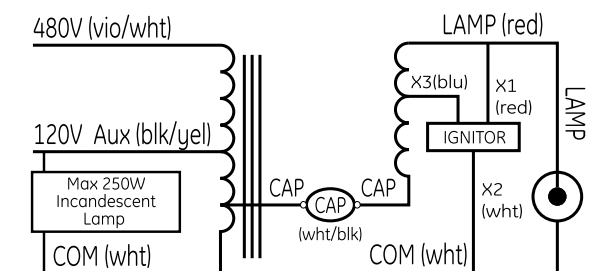
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HID W-(D)-86952-86999



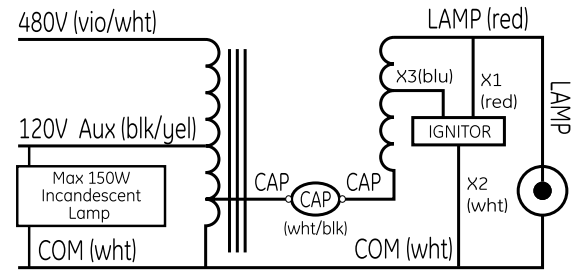
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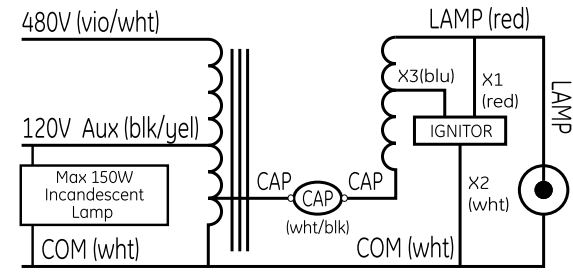
Wiring Diagrams

HID Electromagnetic Ballasts

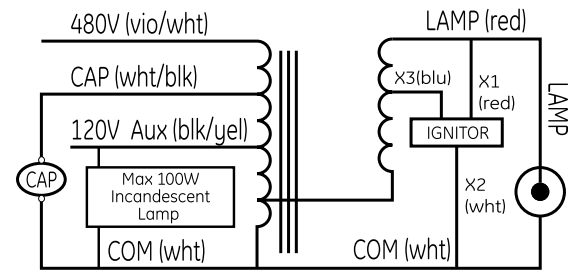
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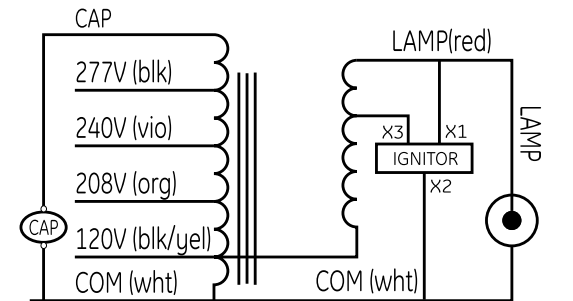
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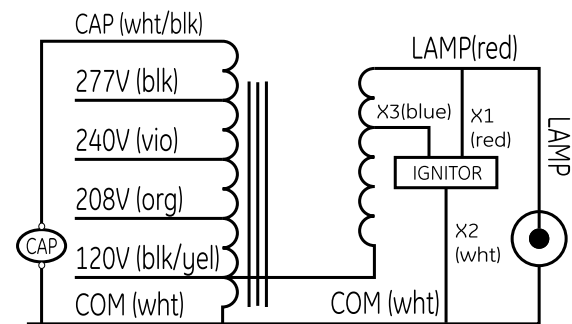
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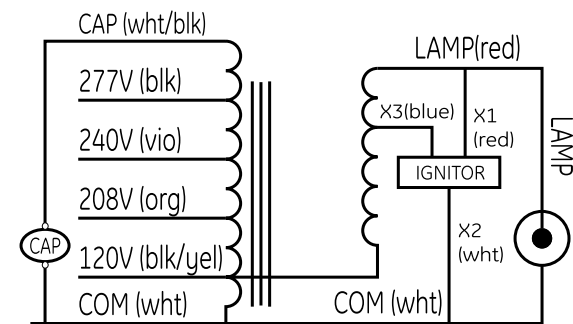
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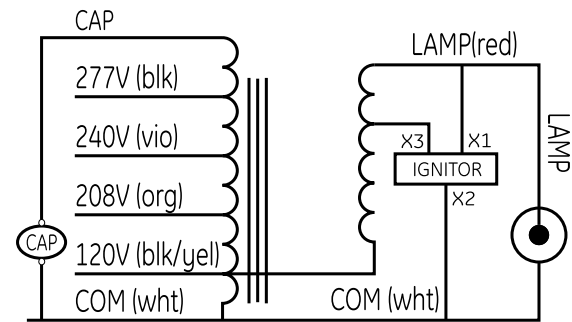
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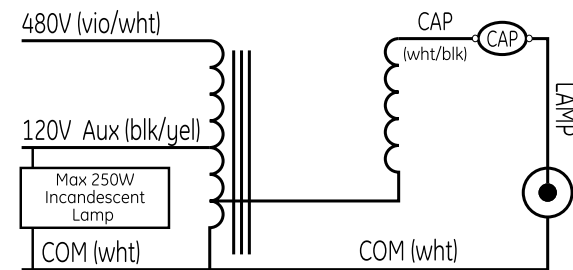
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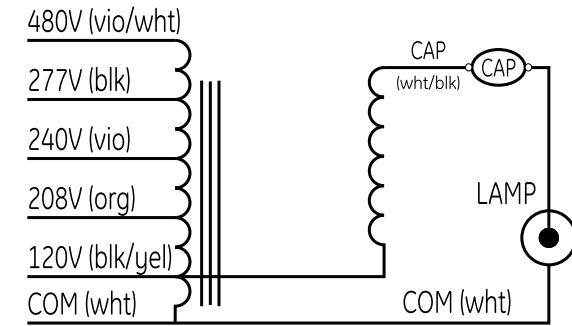
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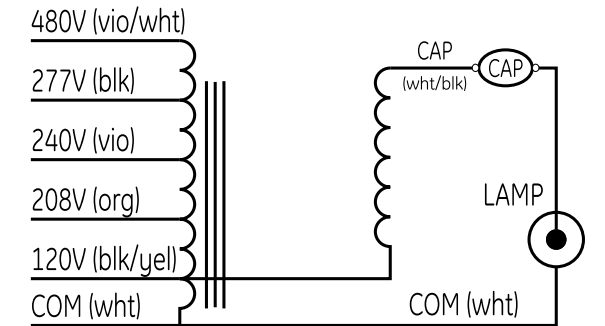
Wiring Diagrams

HID Electromagnetic Ballasts

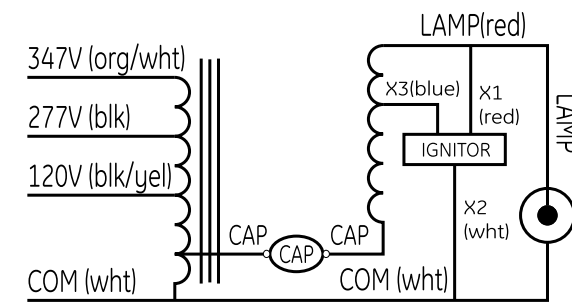
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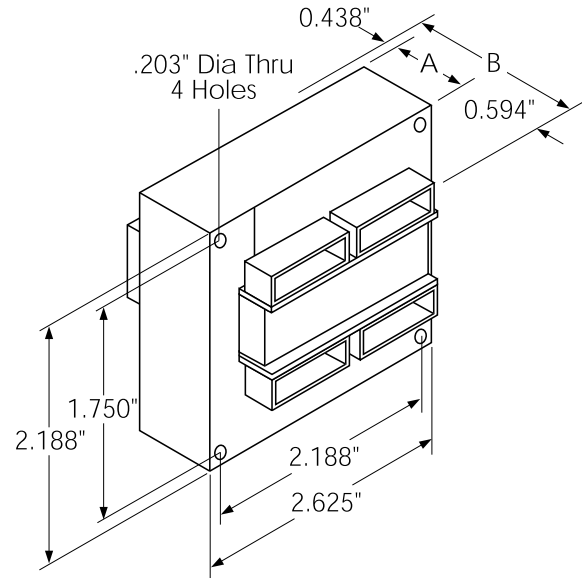


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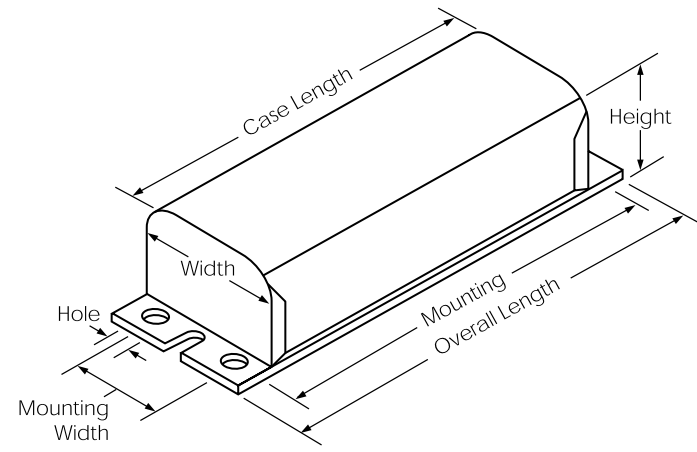


Case Dimensions HID Electromagnetic Ballasts

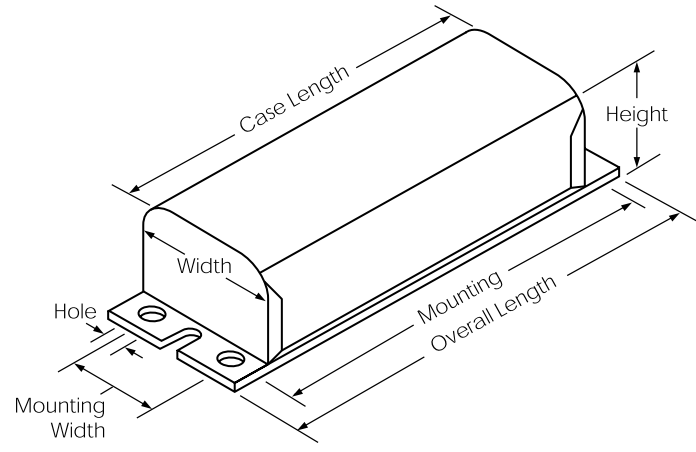
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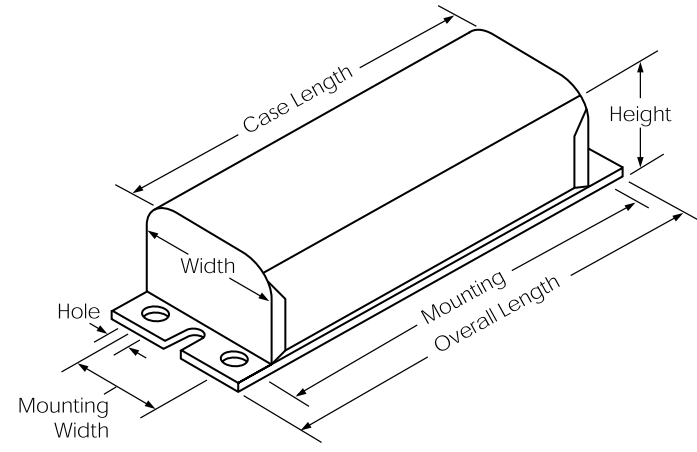
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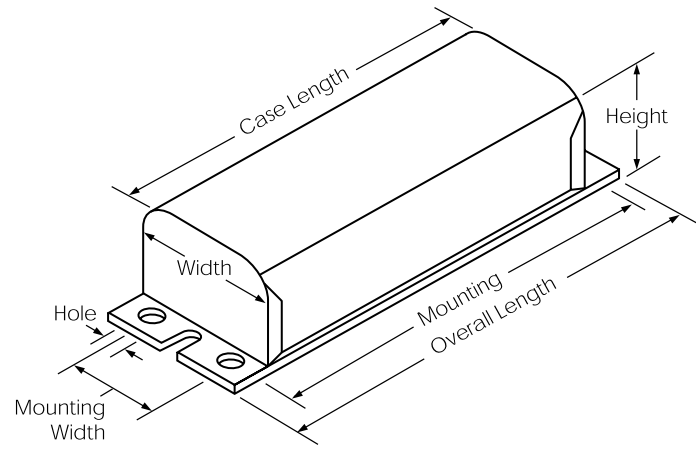
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FCAN3

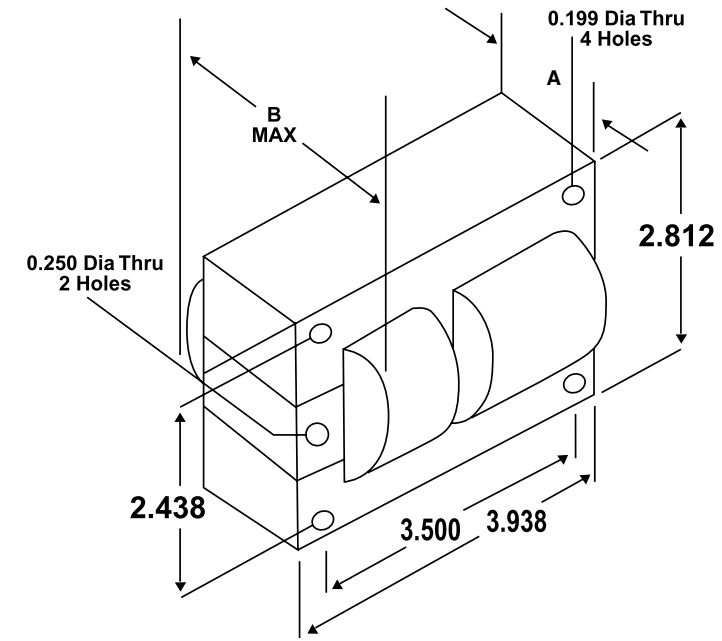


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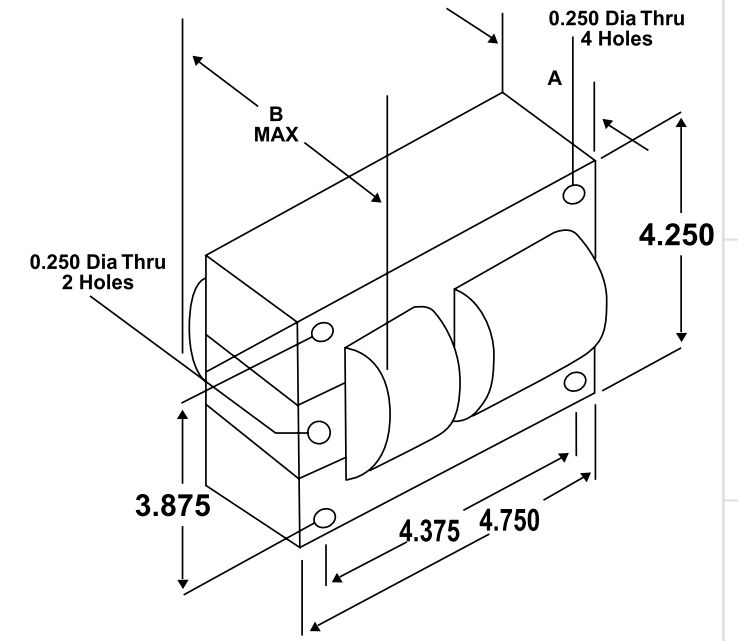


Case Dimensions HID Electromagnetic Ballasts

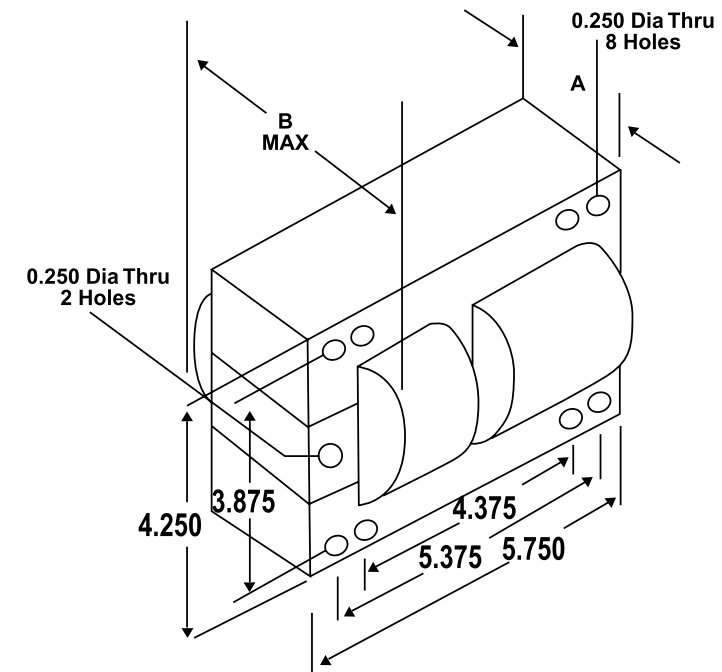
PC1



PC2



PC3



Glossary

Amperes

("Amps.") A measure of electrical current. The current is related to voltage and power as follows: Watts (power) = Volts x Amps (current).

ANSI (American National Standards Institute)

A consensus-based organization which coordinates voluntary standards for the physical, electrical and performance characteristics of lamps, ballasts, luminaires and other lighting and electrical equipment.

ANSI Ballast Type

Ballast type used to operate lamp in accordance with ANSI standard.

ANSI Codes

These are 3-letter codes assigned by the American National Standards Institute. They provide a system of assuring mechanical and electrical interchangeability among similarly coded lamps from various manufacturers. General Electric uses the assigned ANSI Codes as Lamp Ordering Codes for most Projection Lamps.

Auto Reset Shutdown Circuit

Circuit senses lamp end life and will automatically shut off power to the lamp(s). When a new lamp is inserted in the socket, the ballast resets, and turns on the lamp automatically. Some shutdown circuits require the power to be cycled before a new lamp will re-light.

Ballast

An auxiliary piece of equipment required to start and to properly control the flow of current to gas discharge light sources such as fluorescent and high intensity discharge (HID) lamps. Typically, magnetic ballasts (also called electromagnetic ballasts) contain copper windings on an iron core while electronic ballasts are smaller and more efficient and contain electronic components.

Ballast Efficacy Factor (BEF)

Defined as ballast factor x100 divided by input watts. The value is used to evaluate various lighting systems based on light output and power input. The BEF can only be used to compare systems operating the same type and quantity of lamps.

Ballast Factor (BF)

This is the percentage of a lamp's rated lumen output that can be expected when operated on a specific, commercially available ballast. Note that the "rated output" is sometimes measured on a reference ballast unlike ones that actually operate the lamp in the field. For example, a ballast with a ballast factor of 0.93 will result in the lamp's emitting 93% of its rated lumen output. A ballast with a lower BF results in less light output and also generally consumes less power.

Ballast Hum

Sound generated by the vibration of laminations in the iron core or inductor in the ballast.

Ballast Losses

Power or energy dissipated in the ballast as heat and not converted to lamp energy.

Base Temperature (Maximum)

The maximum operating temperature permitted for the base in Celsius. Fixture manufacturers need to ensure that these conditions are satisfied.

Bi-Pin

Any base with two metal pins for electrical contact. This is the typical base for a fluorescent tube of 1 to 4 feet in length. It consists of 2 prong contacts that connect into the fixture. Medium bi-pins are used with type T-8 and T-12 tubular fluorescent lamps, and miniature bi-pins are used for tubular T-5 fluorescent lamps.

Bottom Exit (BE)

(CFL plug-in ballasts) A configuration with leads or a wire-trap on the bottom or base of the ballast. This type of configuration is usually used when the ballast is mounted onto a junction box plate.

Bottom Exit Studs (BES)

(CFL plug-in ballasts) A configuration with screw studs mounted on the base plate or bottom of the ballast. The screws are 3/8-inch long with a #8-32 thread size (#8-32 nut). They are mounted on a 2-inch center. The studs are usually used to mount the ballast directly onto a junction box plate.

Bulb Size

Bulb shape followed by its size (the maximum diameter of the bulb expressed in eighths of an inch). For Compact Fluorescent products, "S", "D", "T", and "Q" are used to represent Single, Double, Triple and Quad Biax[®] sizes. The code also includes a reference such as T4 to represent the size of the tube. Rectangular headlamps are designated as "Rect" and the number of millimeters horizontally.

Canadian Energy Standards

Indicates ballast complies with Canadian Energy Standards and meets the requirements of CAN/CSA C654-M91.

 **Canadian Standards Associations (CSA)**
 Association that generates product performance and safety standards for many Canadian industries.

Capacitor

Device in ballast that stores electrical energy, and is used for power factor correction and lamp regulation.

Cathode

Metal filaments that emit electrons in a fluorescent lamp. Negatively charged free electrons emitted by the cathode are attracted to them, creating an electric current between the electrodes.

Cathode Resistance

Resistance of the cathode in a Fluorescent lamp. It is measured "cold" before the lamp is turned on (Rc) or "hot" after the lamp is turned on (Rh). The ratio of the hot resistance to the cold resistance is also measured (Rh/Rc).

Ceramic Metal Halide

A type of metal halide lamp that uses a ceramic material for the arc tube instead of glass quartz, resulting in better color rendering (>80 CRI) and improved lumen maintenance. GE ConstantColor[®] CMH[®] lamps deliver reliability and excellent color.

ChromaFit

A GE brand name for metal halide lamps designed to operate on HPS ballasts, allowing a user to switch from the yellowish color of HPS to the white color of metal halide without changing ballasts. These products are available in both quartz metal halide and ceramic metal halide (CMH) versions.

Class P Thermal Protector

A switching device sensitive to current and heat that automatically disconnects ballast if the temperature exceeds UL temperature limitations.

Coefficient of Utilization (CU)

In general lighting calculations, the fraction of initial lamp lumens that reach the work plane. CU is a function of luminaire efficiency, room surface reflectances and room shape.

Coil

Windings of copper or aluminum wire surrounding the steel core in ballast. Also refers to the entire assembly comprising the inductor or transformer.

Color Rendering Index (CRI)

An international system used to rate a lamp's ability to render object colors. The higher the CRI (based upon a 0-100 scale) the richer colors generally appear.

Color Temperature (Correlated Color Temperature – CCT)

A number indicating the degree of "yellowness" or "blueness" of a white light source. Measured in kelvins, CCT represents the temperature an incandescent object (like a filament) must reach to mimic the color of the lamp. Yellowish-white ("warm") sources, like incandescent lamps, have lower color temperatures in the 2700K-3000K range; white and bluish-white ("cool") sources, such as cool white (4100K) and natural daylight (6000K), have higher color temperatures. The higher the color temperature, the bluer the light will be.

Compact Fluorescent Lamp (CFL)

The general term applied to fluorescent lamps that are single-ended and that have smaller diameter tubes that are bent to form a compact shape. Some CFLs have integral ballasts and medium or candelabra screw bases for easy replacement of incandescent lamps.

Cool White

A term loosely used to denote a color temperature of around 4100K. The Cool White (CW) designation is used specifically for T12 and other fluorescent lamps using halophosphors and having a CRI of 62.

Core

Component of electromagnetic ballast that is surrounded by the coil. Core is comprised of steel laminations or solid ferrite material.

Core & Coil Ballast

A ballast that uses a "Core & Coil" assembly to operate fluorescent or HID lamps. Refers to copper or aluminum windings on a steel core.

Cost of Light

Usually refers to the cost of operating and maintaining a lighting system on an ongoing basis. The 88-8-4 rule states that (typically) 88% is the cost of electricity, 8% is labor and only 4% is the cost of lamps.

Crest Factor (Lamp Current Crest Factor)

Ratio of peak to RMS for any AC waveform. Crest factor can refer to voltage crest factor or current crest factor.

Daylight Harvesting

Lighting design for building interiors that makes use of daylight as a way of reducing energy consumption.

Dimmer, Dimming Control

A device used to lower the light output of a source, usually by reducing the wattage it is being operated at. Dimming controls are increasing in popularity as energy-conserving devices.

Ecolux[®]

A term for GE lamps that have reduced mercury content and pass the TCLP test.

Efficacy

A measurement of how effective the light source is in converting electrical energy to lumens of visible light. Expressed in lumens-per-watt (LPW), this measure gives more weight to the yellow region of the spectrum and less weight to the blue and red regions where the eye is not as sensitive. The efficiency of a light source is simply the fraction of electrical energy converted to light, i.e. watts of visible light produced for each watt of electrical power with no concern about the wavelength where the energy is being radiated. For example,

a 100-watt incandescent lamp converts 7% of the electrical energy into light; discharge lamps convert 25% to 40% into light.

Efficiency of Ballast

The ratio of output power divided by input power. A premium ballast would have an electrical efficiency greater than 90%. The efficiency of a luminaire or fixture is the percentage of the lamp lumens that actually come out of the fixture.

Electrical Discharge

A condition under which a gas becomes electrically conducive and becomes capable of transmitting current, usually accompanied by the emission of visible and other radiation. An electric spark in air is an example of an electrical discharge, as are a welder's arc and a lightning bolt.

Electrical Testing Laboratory (ETL)

Independent testing laboratory that performs tests and certifies performance data.

Electrode

Any metal terminal emitting or collecting charged particles, typically inside the chamber of a gas discharge lamp. In a fluorescent lamp, the electrodes are typically metal filaments coated with special powders called emission mix. Negatively charged free electrons emitted by one electrode are attracted to the positive electrode (anode), creating an electric current arc.

Electromagnetic Ballast (Magnetic Ballast)

A ballast used with discharge lamps that consists primarily of transformer-like copper or aluminum windings on a steel or iron core. Also called "core and coil" (see ELECTRONIC BALLASTS).

EMI (Electromagnetic Inference)

High-frequency electronic ballasts and other electronic devices can produce a small amount of radio waves which can interfere with radio and TV. Federally mandated requirements must be met for EMI levels before an electronic device is considered FCC compliant (FCC is the Federal Communications Commission).

Electronic Ballast

A short name for a fluorescent high-frequency electronic ballast. Electronic ballasts use solid-state electronic components and typically operate fluorescent lamps at frequencies greater than 25 kHz. The benefits are: increased lamp efficacy, reduced ballast losses and lighter, smaller ballasts compared to electromagnetic ballasts. Electronic ballasts may also be used with HID (high intensity discharge) lamps (see ELECTROMAGNETIC BALLAST).

Energy Policy Act (EPACT)

U.S. Energy legislation setting minimum efficacy (lumens/watt) requirements. Federal Canadian legislation sets similar requirements.

Federal Communications Commission (FCC)

The U. S. federal agency that regulates emissions in the radio frequency portion of the electromagnetic spectrum. Part 18 of the FCC rules specifies electromagnetic interference (EMI) from lighting devices at frequencies greater than 450 kilohertz (kHz). A consumer-rated Class B ballast is designed for use in the home near TV and radio receivers. It produces less electrical noise that could interfere with consumer products. A Class A-rated ballast is designed for use in commercial and industrial applications that are not in the vicinity of TV and radio receivers.

Flicker

The periodic variation in light level caused by AC operation that can lead to strobe effects.

Fluorescent Lamp

A high efficiency lamp utilizing an electric discharge through inert gas and low-pressure mercury vapor to produce ultraviolet (UV) energy. The UV excites phosphor materials applied as a thin layer on the inside of a glass tube that makes up the structure of the lamp. The phosphors transform the UV to visible light.

Footcandles

A unit of illuminance or light falling onto a surface. It stands for the light level on a surface one foot from a standard candle. One footcandle is equal to one lumen per square foot.

Four-Pin Compact Fluorescent Lamps

A "plug-in" compact fluorescent lamp with four pins in the base to make electrical contact.

Frequency

Rate of alternation in an AC current. Expressed in cycles per second or Hertz (Hz).

Harmonic

An integral multiple of the fundamental frequency (60 Hz) that becomes a component of the current.

Harmonic Distortion

Distortion of an AC waveform caused by multiples of the fundamental frequency (harmonics). Odd triplet harmonics (thirds, ninths, etc.) may result in large currents on the neutral line in a four-wire Wye three-phase system.

Hertz (Hz)

Unit used to measure frequency of alteration of current or voltage.

High Efficiency (Energy-Saving) Electromagnetic Ballast

Ballast with core and coils, designed to minimize ballast losses compared to the "standard" ballast.

High Intensity Discharge (HID) Lamp

A general term for mercury, metal halide (GE ConstantColor[®] CMH[®], Multi-Vapor[®], MXR or Arcstream[®]) and high-pressure sodium (GE Lucalox[®]) lamps. HID lamps contain compact arc tubes which enclose mercury and various gases with other chemicals and operate at relatively high pressures and temperatures.

High Power Factor

A ballast whose power factor is corrected to 90% or greater.

High-Pressure Sodium (HPS) Lamp

HPS lamps are high intensity discharge light sources that produce light by an electrical discharge though sodium vapor operating at relatively high pressures and temperatures. GE trade name is Lucalox[®].

Hot Restart Time

Time it takes for an HID lamp to reach 90% of light output after going from on to off to on.

Ignitor

An electronic device providing a high voltage pulse to initiate an electrical discharge. Typically, the ignitor is paired with or is a part of the ballast (see STARTER).

Infrared Radiation

Electromagnetic energy radiated in the wavelength range of about 770 to 1,000,000 nanometers. Energy in this range cannot be seen by the human eye, but can be sensed as heat.

Input Voltage

Power supply voltage required for proper operation of fluorescent or HID ballast.

Input Watts

The total power input to the ballast that includes lamp watts and ballast losses. The total power input to the fixture is the input watts to the ballast or ballasts and is the value to be used when calculating cost of energy. More than 90% of the input watts is wattage or power delivered to the lamp load with typical ballast.

Instant Start

Lamp starting method in which lamps are started by high voltage input with no preheating of lamp filaments. Some rapid start lamps are designed so that they may be instant started.

Instant Start Lamp

A fluorescent lamp, usually with a single pin at each end, approved to operate on instant start ballasts. The lamp is ignited by a high voltage without any filament heating.

Integral

A popular term for a compact fluorescent lamp that includes a built-in ballast (see CFL).

Kilowatt (kW)

The measure of electrical power equal to 1000 watts.

Kilowatt Hour (kWh)

The standard measure of electrical energy and the typical billing unit used by electrical utilities for electricity use. A 100-watt lamp operated for 10 hours consumes 1000 watt-hours (100 x 10) or one kilowatt-hour. If the utility charges \$.10/kWh, then the electricity cost for the 10 hours of operation would be 10 cents (1 kWh x \$.10).

Laminations

Layers of steel, making up the "core" that is surrounded by the coils in a core and coil ballast.

Lamp

The term used to refer to the complete light-source package, including the inner parts as well as the outer bulb or tube. "Lamp," of course, is also commonly used to refer to a type of small light fixture such as a table lamp.

Lamp Types

Filament lamps: Incandescent, Halogen, Halogen-IR. Discharge Lamps: Fluorescent, HID (High Intensity Discharge).

HID Lamps: Mercury, HPS (High Pressure Sodium), MH (Metal Halide) and Ceramic Metal Halide.

Lamp Watts

Input power used to operate lamps.

Life

(See RATED LAMP LIFE.)

Light

Radiant energy that can be sensed or seen by the human eye. Visible light is measured in lumens.

Light-Emitting Diode (LED)

A solid that directly converts electrical impulses into light.

Light Loss Factor

The product of all factors that contribute to lowering the illumination level including reflector degradation, dirt, lamp depreciation over time, voltage fluctuations, etc.

Lumens

A measure of the luminous flux or quantity of light emitted by a source. For example, a dinner candle provides about 12 lumens. A 60-watt Soft White incandescent lamp provides about 840 lumens.

Glossary (cont.)

Lumens/Watts

A ratio expressing the luminous efficacy of a light source. Typical lamp efficacies:

- Thomas Edison’s first lamp - 1.4 lpW
- Incandescent lamps - 10-40
- Halogen incandescent lamps - 20-45
- Fluorescent lamps - 35-105
- Mercury lamps - 50-60
- Metal halide lamps - 60-120
- High-pressure sodium lamps - 60-140

Note: The values above for discharge lamps do not include the effect of the ballasts, which must be used with those lamps. Taking ballast losses into account reduces “system” or lamp-ballast efficacies typically by 10-20% depending upon the type of ballast used.

Lumen Maintenance

A measure of how well a lamp maintains its light output over time.

Luminaire Efficiency

The ratio of total lumens emitted by a luminaire to those emitted by the lamp or lamps used in that luminaire.

Luminaire

A complete lighting unit consisting of a lamp, ballast as required, together with the parts designed to distribute the light, position and protect the lamps and connect them to the power supply. A luminaire is often referred to as a fixture.

Lux (lx)

A unit of illuminance or light falling onto a surface. One lux is equal to one lumen per square meter. Ten lux approximately equal one footcandle (see FOOTCANDLE).

Mean Lumens

The average light output of a lamp over its rated life. Based on the shape of the lumen depreciation curve, for fluorescent and metal halide lamps, mean lumens are measured at 40% of rated lamp life. For mercury, high-pressure sodium and incandescent lamps, mean lumen ratings refer to lumens at 50% of rated lamp life (see LUMEN MAINTENANCE).

Medium Base

Usually refers to the screw base typically used in household incandescent lamps. There is also the medium bi-pin base commonly used in T12 and T8 fluorescent lamps.

Metal Cases

Case design used in both magnetic and electronic ballasts. These ballasts are grounded once they are mounted to the fixture. They meet all safety codes, some of which do not allow plastic in open plenum areas.

Metal Halide Lamp

A high intensity discharge light source in which the light is produced by the radiation from mercury, plus halides of metals such as sodium, scandium, indium and dysprosium. Some lamp types may also utilize phosphor coatings. GE trade names include: Multi-Vapor®, ConstantColor® CMH®, PulseArc®, Staybright®, Watt-Miser®, ChromaFit and Arcstream®.

Mogul Base

A screw base used on larger lamps, e.g. many HID lamps.

Mounting Height

Distance from the bottom of the fixture to either the floor or work plane, depending on usage.

Multi-Vapor®

A GE brand for metal halide lamps.

National Electric Code (NEC)

A nationally accepted electrical installation code to reduce the risk of fire, developed by the National Fire Protection Association.

National Energy Standards for Fluorescent Ballasts

A federal law enacted in 1988 that sets energy standards for ballasts consistent throughout the United States.

National Stock Number

The standardized part number used by the U.S. Government for procurement.

NOM

Laboratory that sets safety standards for building materials and electrical products for Mexico.

Non-PCB Capacitor

Capacitor used in ballasts to help provide power factor correction. Contains no polychlorinated biphenyls and meets EPA requirements.

Normal Power Factor

Ballasts with power factor less than .90 and do not incorporate any means of Power Factor Correction.

Open Circuit Voltage (OCV)

Open Circuit Voltage measured across the socket the lamp screws into, with the ballast powered on. It is dangerous to stick a voltmeter into such a socket without precise knowledge of the ballast because exceedingly high voltages could be present.

Operating Voltage

For electrical discharge lamps, this is the voltage measured across the discharge when the lamp is operating. It is governed by the contents of the chamber and is somewhat independent of the ballast and other external factors.

Parallel Lamp Operation

Refers to ballasts that employ multiple output current paths from a single ballast to allow lamps to operate independently of one another, allowing other lamps operated by the ballast to remain lit should companion lamp(s) fail.

PCB (Polychlorinated Biphenyls)

Chemical pollutant formerly used in ballast capacitors that were part of ballasts. It is now illegal to use PCBs and most such ballasts have been replaced over time.

Phosphor

An inorganic chemical compound processed into a powder and deposited on the inner glass surface of fluorescent tubes and some mercury and metal-halide lamp bulbs. Phosphors are designed to absorb short wavelength ultraviolet radiation and to transform and emit it as visible light.

Potting

Material used to completely surround and cover components of some magnetic and electronic ballasts. Potting compound fulfills functions of protecting components, dampening sound, and dissipating heat.

Power Factor

Measurement of the relationship between the AC source voltage and current. High-power factor ballasts require less AC operating current at the same wattage than an equivalent low-power factor ballast. Formula: power factor equals input watts divided by the product of line volts times line amps (volt amps or VA).

Power Factor Corrected

Ballasts that incorporate a means of Power Factor Correction yielding power factor of 90% or greater.

Preheat Circuit

A type of fluorescent lamp-ballast circuit used with the first commercial fluorescent lamp products. A push-button or automatic switch is used to preheat the lamp cathodes to a glow state before starting.

Product Code

Five-digit code to identify the product.

Programmed Rapid Start

Lamp starting method which preheats the lamp filaments while not allowing the lamp to ignite and then applies the open circuit voltage (OCV) to start the lamp. This type of starting circuit keeps lamp-end blackening to a minimum and improves lamp-life performance, especially in applications where the lamps are frequently switched on and off.

PulseArc®

GE description for a type of metal halide lamp that provides improved lumen maintenance for longer useful life and extended relamp cycles. These products are designed to operate on ballasts that have ignitors to help with lamp starting.

Pulse Start

An HID ballast with a high voltage ignitor to start the lamp.

Quartz

A name for fused silica or melted sand from which many high-temperature containers are fashioned in the lighting industry. Quartz looks like glass but can withstand the high temperatures needed to contain high intensity arc discharges.

Radiation

A general term for the release of energy in a “wave” or “ray” form. All light is radiant energy or radiation, as is heat, UV, microwaves, radio waves, etc.

Rapid Start Circuit

A fluorescent lamp-ballast circuit that utilizes continuous cathode heating, while the system is energized, to start and maintain lamp light output at efficient levels. Rapid start ballasts may be either electromagnetic, electronic or of hybrid designs. Full-range fluorescent lamp dimming is only possible with rapid start systems (see INSTANT START).

Rapid Start

Lamp starting method in which lamp filaments are heated while open circuit voltage (OCV) is applied to facilitate lamp ignition. A Rapid Start fluorescent lamp has two pins at each end connected to the filament. The filaments are heated by the ballast to aid in starting. Some rapid start lamps may be instant started without filament heat, for example the F32T8 lamp.

Rated Lamp Life

For most lamp types, rated lamp life is the length of time of a statistically large sample between first use and the point when 50% of the lamps have died. It is possible to define “useful life” of a lamp based on practical considerations involving lumen depreciation and color shift.

Room Cavity Ratio (RCR)

A shape factor (for a room, etc.) used in lighting calculations.

RCR = 5H (L+W) / L x W, or, alternately,

RCR = (2.5) Total Wall Area / Floor Area.

Where H = height, L = length and W = width of the room.

A cubical room will have an RCR of 10; the flatter the room the lower the RCR.

Scotopic/Photopic (S/P) Ratio

This measurement accounts for the fact that of the two light sensors in the retina, rods are more sensitive to blue light (scotopic vision) and cones to yellow light (photopic vision). The scotopic/photopic (S/P) ratio is an attempt to capture the relative strengths of these two responses. S/P is calculated as the ratio of scotopic lumens to photopic lumens for the light source on an ANSI reference ballast. Cooler sources (higher color temperature lamps) tend to have higher values of the S/P ratio compared to warm sources.

Self-Ballasted Lamps

A discharge lamp with an integral ballasting device allowing the lamp to be directly connected to a socket providing line voltage (see CFL).

Series Lamp Operation

Refers to ballasts that employ a single current path passing through all lamps operated by the ballast. If one lamp should fail, companion lamps operated by the same ballasts will also extinguish or dim.

Spacing-to-Mounting-Height Ratio

Ratio of fixture spacing (distance apart) to mounting height above the work plane; sometimes called spacing criterion. It is OK to have fixtures spaced closer than the spacing criterion suggested by the manufacturer but not farther, or you will get dark spots in between fixtures.

Specification Series (SP) Colors

Energy-efficient, all-purpose, tri-phosphor fluorescent lamp colors that provide good color rendering. The CRI for SP colors is 70 or above and varies by specific lamp type.

Specification Series Deluxe (SPX) Colors

Energy-efficient, all-purpose, tri-phosphor fluorescent lamp colors that provide better color rendering than Specification Series (SP) colors. The CRI for SPX colors is 80 or above and varies by specific lamp type. All GE CFL products use SPX phosphors.

Specification Series Deluxe eXtreme (SPXX) Colors

A color designation for GE ceramic metal halide lamps with superior color rendering ~ 90.

Specular Reflection

Reflection from a smooth, shiny surface, as opposed to diffuse reflection.

Spiral® Lamp

GE trademark for its helical family of high-efficiency, long-life compact fluorescent lamps.

Starcoat®

GE’s special barrier coating applied on the inside of all GE T8 fluorescent lamps, as well as some other lamp types, to enhance lamp life and deliver superior lumen maintenance.

Starter

An electronic module or device used to assist in starting a discharge lamp, typically by providing a high-voltage surge (see IGNITOR).

Starting Temperature (Minimum)

The minimum ambient temperature at which the lamp will start reliably.

T-12, T-8, T-5

A designation for the diameter of a tubular bulb in eighths of an inch; T-12 is 12 eighths of an inch, or 1-1/2 inches; T-8 is 1 inch, and so on.

Task Lighting

Supplemental lighting provided to assist in performing a localized task, e.g., a table lamp for reading or an inspection lamp for fabric inspection.

TCLP Test

The Toxicity Characteristic Leaching Procedure (TCLP) test, specified in the U.S. Resource Conservation and Recovery Act (RCRA) of 1990, is used to characterize fluorescent lamp waste as hazardous or nonhazardous waste. The TCLP test measures the ability of the mercury and/or lead in a lamp to leach from a landfill into groundwater (see ECOLUX).

THD

(See TOTAL HARMONIC DISTORTION.)

Terminal-to-Terminal Starting Lamp Voltage (VRMS) (Minimum or Maximum)

The minimum or maximum voltage allowed into lamp from ballast under varying conditions as specified.

Total Harmonic Distortion (THD)

A measure of the distortion of the input current on alternating-current (AC) power systems caused by higher-order harmonics of the fundamental frequency (60Hz in North America). THD is expressed in percent and may refer to individual electrical loads (such as ballast) or a total electrical circuit or system in a building. ANSI C82.77 recommends THD not exceed 32% for individual commercial electronic ballasts, although some electrical utilities may require lower THDs on some systems. Excessive THDs on electrical systems can cause efficiency losses as well as overheating and deterioration of system components.

Transients

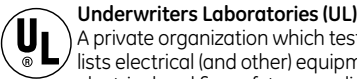
High voltage surges through an electrical system caused by lightning strikes to nearby transformers, overhead lines or the ground. May also be caused by switching of motors or compressors, as well as by short circuits or utility system switching. Can lead to premature ballast failure.

Troffer

A long, recessed lighting unit, usually installed in an opening in the ceiling.

Two-Pin Compact Fluorescent Lamps

Type of lamps that have the glow bottle starter built into the base of the lamp. Traditionally two-pin lamps work with electromagnetic ballasts.



Underwriters Laboratories (UL)
A private organization which tests and lists electrical (and other) equipment for electrical and fire safety according to recognized UL and other standards. A UL listing is not an indication of overall performance. Lamps are not UL listed—except for compact fluorescent lamp assemblies—those with screw bases and built-in ballasts.

Uniform Product Code (UPC)

The 12-digit code on the saleable unit that is used for scanning at the register.

Ultra

A common way of referring to high-efficiency GE T8 family of lamps and ballast that performs better than standard T8 lamps. Also refers to the system.

UltraMax® Ballast

A family of high-efficiency GE instant-start electronic linear fluorescent ballasts designed to optimize GE’s T8 Ultra lamps for enhanced system energy savings. UltraMax® ballasts have a low lamp current crest factor and virtually “read” and adapt to incoming voltage from 108V to 305V. Other features include UL Type CC Anti-Arc Rating and anti-striation control to eliminate lamp striations and spiraling. GE also has an UltraMax®

HID ballast which can operate PulseArc® and CMH® lamps anywhere from 250 watts to 400 watts and provides greatly improved lumen maintenance.

UltraStart® Ballast

A family of high-efficiency GE programmed start electronic linear fluorescent ballasts designed to optimize GE’s T8 Ultra lamps in frequently switched applications. Instant start ballast provides 10,000 starts. UltraStart® provides 100,000 to 200,000 starts. Use programmed start ballast to ensure long lamp life when turning lamps on and off more than twice a day.

Ultraviolet (UV) Radiation

Radiant energy in the range of about 100-380 nanometers (nm). For practical applications, the UV band is broken down.

The International Commission on Illumination (CIE) defines the UV band as UV-A (315-400 nm); UV-B (280-315 nm) and UV-C (100-280 nm).

Ultra Watt-Miser®

GE’s family of energy-saving T8 fluorescent lamps.

Veiling Reflection

Reflected glare from a light source bouncing off a shiny surface.

Visual Comfort Probability (VCP)

VCP is the percent of people who find the lighting scheme acceptable in terms of glare.

Volt

A measure of “electrical pressure” between two points. The higher the voltage, the more current will be pushed through a resistor connected across the points. The volt specification is the electrical “pressure” required to drive it at its designated point. The “voltage” of a ballast (e.g. 277 V) refers to the line voltage it must be connected to.

Voltage

A measurement of the electromotive force in an electrical circuit or device expressed in volts. Voltage can be thought of as being analogous to the pressure in a water line.

Wall Temperature (Maximum Bulb)

The maximum operating bulb wall temperature.

Warm-Up Time to 90%

The time it takes for a HID lamp to reach 90% of light output after being turned on.

Warm White

Refers to a color temperature around 3000K, providing a yellowish-white light.

Watt

A unit of electrical power. Lamps are rated in watts to indicate the rate at which they consume energy (see KILOWATT HOUR).

Watt-Miser®

A Watt-Miser® lamp is a term used by GE to indicate a reduced-wattage lamp with performance characteristics (life, light output, etc.) such that it can usually directly replace a higher-wattage product.

Wattage Indicator Reduced

Indicates that this is a reduced wattage option for lamps normally used in this application. Be sure to check wattage, lumens and life to determine which lamp is best suited to your needs.

Wavelength

The distance between two neighboring crests of a traveling wave. The wavelength of light is between 400 and 700 nanometers.

Ballast cross reference matrix

Prod Code	Description	Advance P/N	Universal P/N	OSI P/N	Howard P/N
T8 Fluorescent Ballasts					
T8 INSTANT START BALLASTS					
UltraMax® Instant Start Multi-Voltage High Efficiency					
72258	GE132MAX-L/ULTRA	IOP-1P32LW-SC	B132IUNVEL-A		
72259	GE132MAX-N/ULTRA	IOP-1P32-SC	B132IUNVHE-A	QHE 1X32T8/UNV ISN-SC-1	
49775	GE232MAX-H/ULTRA	IOP-2P32HL-SC	B232IUNVHEH-A		
72262	GE232MAX-L/ULTRA	IOP-2P32LW-SC	B232IUNVEL-A		
72266	GE232MAX-N/ULTRA	IOP-2P32-SC	B232IUNVHE-A	QHE 2X32T8/UNV ISN-SC-1	
71421	GE232MAX-N+				
71714	GE332MAX-H/ULTRA	IOP-3P32HL-90C-SC	B332IUNVHEH-A	QHE 3X32T8/UNV ISH-SC-1	
71717	GE332MAX-L/ULTRA	IOP-3P32LW-SC	B332IUNVEL-A		
71719	GE332MAX-N/ULTRA	ICN-3P32-SC	B332IUNVHE-A		
71422	GE332MAX-N+				
71723	GE432MAX-H/ULTRA	IOP-4P32HL90CG		QHE 4X32T8/UNV ISH-SC-1	
71725	GE432MAX-L/ULTRA	IOP-4P32LW-SC	B432IUNVEL-A		
71727	GE432MAX-N/ULTRA	ICN-4P32-SC	B432IUNVHE-A		
71423	GE432MAX-N+				
49766	GE159MAX-N/ULTRA				
49767	GE259MAX-N/ULTRA	IOP-2P59-SC			
ProLine® T8 Multivolt 120V - 277V					
72269	GE-132-MV-N	ICN-1P32-SC	B132IUNVHP-B	QTP 1X32T8/UNV ISL-SC/QHE 1X32T8/UNV ISN-SC	
30198	GE-232-MV-H	REL-2P32-HL-SC/VEL-2P32-HL-SC	B232I120RHH-A/B232I277RHH-A	QTP 2X32T8/UNV ISH-SC/QHE 2X32T8/UNV ISH-SC	
72273	GE-232-MV-L	REL-2P32-LW-SC/VEL-2P32-LW-SC	B232I120L-A/B232I277L-A	QTP 2X32T8/UNV ISL-SC/QHE 2X32T8/UNV ISL-SC	EPL2/32IS-120-277
72275	GE-232-MV-N	ICN-2P32-SC	B232IUNVHP-B	QTP 2X32T8/UNV ISN-SC/QHE 2X32T8/UNV ISN-SC	EP2/32IS-120-277
30199	GE-332-MV-H	REL-3P32-HL-SC/VEL-3P32-HL-SC	B332I120RHH-A/B332I277RHH-A	QTP 3X32T8/UNV ISH-SC/QHE 3X32T8/UNV ISH-SC	
30255	GE-332-MV-L	REL-3P32-LW-SC/VEL-3P32-LW-SC	B332I120L-A/B332I277L-A	QTP 3X32T8/UNV ISL-SC/QHE 3X32T8/UNV ISL-SC	EPL3/32IS-120-277
30192	GE-332-MV-N	ICN-3P32-SC	B332IUNVHP-B	QTP 3X32T8/UNV ISN-SC/QHE 3X32T8/UNV ISN-SC	EP3/32IS-120-277
30219	GE-432-MV-H	REL-4P32-HL-SC/VEL-4P32-HL-SC	B432I120RHH-A/B432I277RHH-A	QHE 4X32T8/UNV ISH-SC	
30262	GE-432-MV-L	REL-4P32-LW-SC/VEL-4P32-LW-SC	B432I120L-A/B432I277L-A	QTP 4X32T8/UNV ISL-SC/QHE 4X32T8/UNV ISL-SC	EPL4/32IS-120-277
30193	GE-432-MV-N	ICN-4P32-SC	B432IUNVHP-B	QTP 4X32T8/UNV ISN-SC/QHE 4X32T8/UNV ISN-SC	EP4/32IS-120-277
30195	GE-159-MV-N				
30194	GE-259-MV-N	RCN-2P59/VCN-2P59	B259IUNVHP-B	QTP 2X59T8/UNV ISN-SC/QHE 2X59T8/UNV ISN-SC	
ProLine® T8 Multivolt High Output 120V - 277V					
30176	GE-286-HO-MV-N	RCN-2S86	B259I120RHH/B259I277RHH	QHE 2X86T8HO/UNV-PSN-HT-SCL/QHE2X59T8/UNV-ISH	
ProLine® T8 Instant Start High-Performance					
23680	GE-132-120-N	RCN-1P32-SC	B132I120RH-A	QT1X32T8/120/ISN-SC	
23681	GE-132-277-N	VCN-1P32-SC	B132I277RH-A	QT1X32T8/277/ISN-SC	
23671	GE-232-120-N	RCN-2P32-SC	B232I120RH-A	QT2X32T8/120/ISN-SC	
23672	GE-232-277-N	VCN-2P32-SC	B232I277RH-A	QT2X32T8/277/ISN-SC	
23673	GE-332-120-N	RCN-3P32-SC	B332I120RH-A	QT3X32T8/120/ISN-SC	
23674	GE-332-277-N	VCN-3P32-SC	B332I277RH-A	QT3X32T8/277/ISN-SC	
23675	GE-432-120-N	RCN-4P32-SC	B432I120RH-A	QT4X32T8/120/ISN-SC	
23676	GE-432-277-N	VCN-4P32-SC	B4132I277RH-A	QT4X32T8/277/ISN-SC	
23677	GE-259-120-N	RCN-2P59		QT2X59/120IS	
23678	GE-259-277-N	VCN-2P59		QT2X59/277IS	
Residential Grade ProLine® T8 120V					
97782	GE232-120-RES	REB232-SC	B232I120RES-A		
97783	GE432-120-RES	REB4P32-SC	B432I120RES-A		
Electromagnetic T8 Ballasts					
87125	GEM232T8RS120	R-2P32-TP	M232SR120C		
87130	GEM232T8RS277	V-2P32-TP	M232SR277C		
T8 PROGRAM START BALLASTS					
UltraStart® T8 Program Rapid Start					
29621	GE-232-120-PS-N	RCN-2S32-SC			
29622	GE-232-277-PS-N	VCN-2S32-SC			
96714	GE232-MVPS-N	IOP-2S32-SC	B232PUNVHP-A	QTP 2X32T8/UNVPSN-TC	
96720	GE232-MVPS-L	IOP-2S32-LW-SC		QTP 2X32T8/UNV PSX-TC	
29675	GE-232-MVPS-H	N/A		QHE2x32T8/UNV-PSH-HT	
29671	GE-232-MVPS-XL	N/A			
29623	GE-332-120-PS-N	RCN-3S32-SC			
29624	GE-332-277-PS-N	VCN-3S32-SC			
29676	GE-332-MVPS-H	IOP-3S32-SC			
96715	GE332-MVPS-N	IOP-3S32-SC	B332PUNVHP-A	QTP 3X32T8/UNVPSN-SC	

Prod Code	Description	Advance P/N	Universal P/N	OSI P/N	Howard P/N
T8 Fluorescent Ballasts					
96721	GE332-MVPS-L	IOP-3S32-LW-SC		QTP 3X32T8/UNV PSX-SC	
29672	GE-332-MVPS-XL	N/A		QHE3x32T8/UNV-PSH-HT	
29625	GE-432-120-PS-N	RCN-4S32-SC			
29627	GE-432-277-PS-N	VCN-4S32-SC			
96716	GE432-MVPS-N	IOP-4S32-SC	B432PUNVHP-A	QTP 4X32T8/UNVPSN-SC	
71832	GE432-MVPS-L	IOP-4S32-LW-SC		QTP 4X32T8/UNV PSX-SC	
29678	GE-432-MVPS-H			QHE4x32T8/UNV-PSH-HT	
T8 Dimming					
80353	B132R120V5	RZT-132	B132R120V5		
80355	B232SR120V5	RZT-2S32	B232SR120V5		
80362	B232SR277S50	VZT-2S32	B232SR277S50		
80356	B232SR277V5	VZT-2S32	B232SR277V5		
80357	B332SR120V5	RZT-3S32	B332SR120V5		
80358	B332SR277V5	VZT-3S32	B332SR277V5		
T5 Fluorescent Ballasts					
T5 ELECTRONIC PROGRAMMED START BALLASTS					
UltraStart® T5 Programmed Rapid Start					
99653	GE228MVPSH-A		B228PUNV115-D	QTP2X28T5/UNVPSN NL	
99655	GE228MVPS-A		B228PUNV95-D		
47536	B228PUNV-COG1C	ICN-2S28	B228PUNV-C		
47534	B224PUNV-COG1C	ICN-2S24	B224PUNV-D	QTP2X39-24T5HO/UNVPSN NL	
47540	B239PUNV-DOG1C	ICN-2S39	B239PUNV-D	QTP2X39-24T5HO/UNVPSN NL	
99651	GE254MVPS90-F	ICN-2S54-90C	B254PUNV-D	QTP 2X54T5HO/UNV PSN HT	EP2/54HO/PRS/MV/90C
47542	B254PUNV-DGE1C	ICN-2S54	B254PUNV-D		
72279	GE254MVPS-D			QTP2X54T5HO/UNVPSN NL	EP2/54HO/PRS/120-277
99649	GE454MVPS90-E	ICN4S5490C2LSG	B454PUNV-E	QTP 4X54T5HO/UNV PSN HTW NL	
29726	GE454MVPSN1	ICN4S5490C2LS		QTP 4X54T5HO/UNV PSN HT	
72280	GE180MVPS-D			QTP1X80T5HO/UNVPSN NL	
T12 Fluorescent Ballasts					
T12 ELECTRONIC BALLASTS					
ProLine® T12 Multivolt 120V - 277V					
24107	GE-240-RS-MV-N	R-140-TP	B240R120HP/B240R277HP		
97498	GE240RS120	REL-2S40-SC/RELB-2S40-SC	B234SR120M-A	QTP2X40T12/120RSN-SC	
72110	GE140RS120-DIY	REL-1S40-SC	B134SR120M-A	QTP1X40T12/120/277RSN-SC	
24109	GE-340-RS-MV-N	R-3S34-TP	B340R120HP/B340R277HP	QTP3X40T12/120/277RSN	
24108	GE-260-IS-MV-N	R2E75STP	B260IUNVHP	QT2x96/120IS/QT2x96/277IS	
80162	B295SR120HP	REL-2P60-S-A/REL-2S110	B295SR120HP	QT2x96/120HO	
80163	B295SR277HP	VEL-2P75-S/VEL-2S110	B295SR277HP	QT2x96/277HO	
72109	GE296HO-MV-N		B295SRUNVHP		
T12 MAGNETIC BALLASTS					
89711	GEM120PH120DIY	LC-14-20-C-TP	200H2		
89712	GEM120TC120DIY	RLQ-120-TP	546BTCP		
89720	GEM1FC16T9RS120	RMS-3240-TP-W	726VLHWSTCP		
86227	GEM1FC8T9RS120IP	RLQS-122-TP-W	547RSWSTCP		
89717	GEM1FC12T9RS120	RS-22-32-TP-W	449LRWSTCP		
80819	GEM220TS120DIY	RS-2SP20-TP	447LRVLTCP		
89714	GEM140HRS120DIY	R-140-TP	412LSLHTCP		
89709	GEM140RS120DIY	RL-140-TP	413CTCP		
80644	GEM230RS120	RM-2SP30-TP	573LTCP		
89710	GEM240HRS120DIY	RK-2S34-TP	420LTCP		
86139	GEM240RS120IP	R-2P840-TP	446LSLHTCP		
86124	GEM240RS277IP	V2S40TP	443LSLHTCP		
86341	GEM240RS220	MTM-2S40-TP	754LTCP		
86372	GEM196IS120IP	RSM175STP	822BRTCP		
86381	GEM196IS277	VSM175STP	828BRTCP		
86360	GEM296IS120IP	R2E75STP	806SLHTCP		
86379	GEM296IS277IP	V2E75STP	827SLHTCP		
86164	GEM296HORS120IP	R-2S110-TP	480SLHTCP		
86171	GEM296HORS277	V-2S110-TP	487SLHTCP		
Sign Ballasts					
72103	GESB-0412-12-IP	ASB-0412-12-BL-TP	USB-0412-12-IP		
72104	GESB-0620-24-IP	ASB-0620-24-BL-TP	USB-0816-14-IP		
72105	GESB-1224-24-IP	ASB-1224-24-BL-TP	USB-1024-14-IP		
72106	GESB-1240-46-IP	ASB-1240-46-BL-TP	USB-2036-46-IP		
72107	GESB-2040-46-IP	ASB-2040-24-BL-TP	USB-1632-24-IP		
72108	GESB-2448-46-IP	ASB-2448-46-BL-TP	USB-2048-46-IP		

Quick Reference Guides
Fluorescent Ballasts
T5 Fluorescent Ballasts
T12 Fluorescent Ballasts
Sign Ballasts
Compact Fluorescent Ballasts
HID Electronic Ballasts
HID Electromagnetic Ballasts

